

December 3, 2019

Alan Sundquist CDW Consultants, Inc. 6 Huron Drive Natick, MA 01760

Project Location: Beaver St., Waltham, MA

Client Job Number: Project Number: 1830

Laboratory Work Order Number: 19K1403

Michelle Koch

Enclosed are results of analyses for samples received by the laboratory on November 22, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Koch Project Manager

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CDW Consultants, Inc. 6 Huron Drive Natick, MA 01760 ATTN: Alan Sundquist

REPORT DATE: 12/3/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER:

ANALYTICAL SUMMARY

WORK ORDER NUMBER:

1830

19K1403

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION:

Beaver St., Waltham, MA

_	FIELD SAMPLE#	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
	HB-1	19K1403-01	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-5	19K1403-02	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-6	19K1403-03	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-7	19K1403-04	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-8	19K1403-05	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-9	19K1403-06	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-10	19K1403-07	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-11	19K1403-08	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-14	19K1403-09	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	
	HB-15	19K1403-10	Soil		SM 2540G	
					SW-846 6010D	
					SW-846 7471B	
					SW-846 8270D-E	



CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.



SW-846 6010D

ualifications:

1.07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Arsenic

B247130-BSD1

Vanadium

B247130-BSD1

SW-846 8270D-E

Qualifications:

T.-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

19K1403-01[HB-1], 19K1403-02[HB-5], 19K1403-03[HB-6], 19K1403-04[HB-7], 19K1403-05[HB-8], 19K1403-06[HB-9], 19K1403-07[HB-10], 19K1403-08[HB-11], 19K1403-07[HB-10], 19K1403-08[HB-11], 19K1403-07[HB-10], 19K1403-07[HB-10]19K1403-09[HB-14], 19K1403-10[HB-15], B246869-BLK1, B246869-BS1, B246869-BSD1

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated. Analyte & Samples(s) Qualified:

Benzidine

19K1403-02[HB-5], B246869-MS1, B246869-MSD1

Benzoic Acid

19K1403-02[HB-5], B246869-MS1, B246869-MSD1

Pyridine

9K1403-02[HB-5], B246869-MS1, B246869-MSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

Benzidine

19K1403-01[HB-1], 19K1403-02[HB-5], 19K1403-03[HB-6], 19K1403-04[HB-7], 19K1403-05[HB-8], 19K1403-06[HB-9], 19K1403-07[HB-10], 19K1403-08[HB-11], 19K1403-09[HB-14], 19K1403-10[HB-15], B246869-BLK1, B246869-BS1, B246869-BSD1, B246869-MS1, B246869-MSD1, S043199-CCVI

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Benzidine

19K1403-01[HB-1], 19K1403-02[HB-5], 19K1403-03[HB-6], 19K1403-04[HB-7], 19K1403-05[HB-8], 19K1403-06[HB-9], 19K1403-07[HB-10], 19K1403-08[HB-11], 19K1403-09[HB-14], 19K1403-10[HB-15], B246869-BLK1, B246869-BS1, B246869-BSD1, B246869-MS1, B246869-MSD1, S043199-CCV1

19K1403-01[HB-1], 19K1403-02[HB-5], 19K1403-03[HB-6], 19K1403-04[HB-7], 19K1403-05[HB-8], 19K1403-06[HB-9], 19K1403-07[HB-10], 19K1403-08[HB-11], 19K1403-09[HB-14], 19K1403-10[HB-15], B246869-BLK1, B246869-BS1, B246869-BSD1, B246869-MS1, B246869-MSD1, S043199-CCV1

Pentachlorophenol

19K1403-01[HB-1], 19K1403-02[HB-5], 19K1403-03[HB-6], 19K1403-04[HB-7], 19K1403-05[HB-8], 19K1403-06[HB-9], 19K1403-07[HB-10], 19K1403-08[HB-11], 19K1403-09[HB-14], 19K1403-10[HB-15], B246869-BLK1, B246869-BS1, B246869-BSD1, B246869-MS1, B246869-MSD1, S043199-CCV1

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated

Analyte & Samples(s) Qualified:

4-Chloroaniline

19K1403-01[HB-1], 19K1403-02[HB-5], 19K1403-03[HB-6], 19K1403-04[HB-7], 19K1403-05[HB-8], 19K1403-06[HB-9], 19K1403-07[HB-10], 19K1403-08[HB-11], 19K1403-09[HB-14], 19K1403-10[HB-15], B246869-BLK1, B246869-BS1, B246869-BSD1, B246869-MS1, B246869-MSD1, S043199-CCV1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is

estimated. alyte & Samples(s) Qualified:

19K1403-01[HB-1], 19K1403-02[HB-5], 19K1403-03[HB-6], 19K1403-04[HB-7], 19K1403-05[HB-8], 19K1403-06[HB-9], 19K1403-07[HB-10], 19K1403-08[HB-11], 19K1403-09[HB-14], 19K1403-10[HB-15], B246869-BLK1, B246869-BS1, B246869-BSD1, B246869-MSD1, B246869-MSD1, S043199-CCV1

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The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington Technical Representative

na Watsleagta



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019 Field Sample #: HB-1

Sampled: 11/19/2019 10:00

Sample ID: 19K1403-01

Sample Matrix: Soil			Semivolatile Organic C	ompounds b	y GC/MS				
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Acenaphthene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Acenaphthylene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Acetophenone	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Aniline	ND	0.51	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Anthracene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Benzidine	ND	1.0	mg/Kg dry	1	V-04, V-05, V-35	SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Benzo(a)anthracene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Benzo(a)pyrene	ND	0.26	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Benzo(b)fluoranthene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Benzo(g,h,i)perylene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Benzo(k)fluoranthene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Benzoic Acid	ND	1.5	mg/Kg dry	1	L-04	SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Bis(2-chloroethoxy)methane	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Bis(2-chloroethyl)ether	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Bis(2-chloroisopropyl)ether	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
4-Bromophenylphenylether	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
lutylbenzylphthalate	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Carbazole	ND	0.26	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
4-Chloroaniline	ND	1.0	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
4-Chloro-3-methylphenol	ND	1.0	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2-Chloronaphthalene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2-Chlorophenol	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
4-Chlorophenylphenylether	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Chrysene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Dibenz(a,h)anthracene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Dibenzofuran	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Di-n-butylphthalate	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
1,2-Dichlorobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
1,3-Dichlorobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
1,4-Dichlorobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
3,3-Dichlorobenzidine	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2,4-Dichlorophenol	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Diethylphthalate	ND	0.51	mg/Kg dry	ī		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2,4-Dimethylphenol	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Dimethylphthalate	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
4,6-Dinitro-2-methylphenol	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2,4-Dinitrophenol	ND	1.0	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2,4-Dinitrotoluene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2,6-Dinitrotoluene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Di-n-octylphthalate	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
,2-Diphenylhydrazine/Azobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Fluoranthene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Fluorene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB

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Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

ate Received: 11/22/2019

Field Sample #: HB-1

Sampled: 11/19/2019 10:00

Sample ID: 19K1403-01 Sample Matrix: Soil

Sample Matrix: Soil		Semi	ivolatile Organic C	ompounds by	GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Hexachlorobutadiene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Hexachlorocyclopentadiene	ND	0.51	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Hexachloroethane	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Indeno(1,2,3-cd)pyrene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Isophorone	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
I-Methylnaphthalene	ND	0.26	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2-Methylnaphthalene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2-Methylphenol	ND	0.51	mg/Kg dry	t		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
3/4-Methylphenol	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Naphthalene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2-Nitroaniline	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
3-Nitroaniline	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
4-Nitroaniline	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Nitrobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2-Nitrophenol	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
4-Nitrophenol	ND	1.0	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
-Nitrosodimethylamine	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
N-Nitrosodi-n-propylamine	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Pentachloronitrobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Pentachlorophenol	ND	0.51	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Phenanthrene	ND	0.26	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Phenol	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Pyrene	ND	0.26	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Pyridine	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
1,2,4-Trichlorobenzene	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2,4,5-Trichlorophenol	ND	0.51	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
2,4,6-Trichlorophenol	ND	0.51	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:30	KLB
Surrogates		% Recovery	Recovery Limit	s	Flag/Qual				
2-Fluorophenol		75.9	30-130					11/27/19 18:30	
Phenol-d6		75.9	30-130					11/27/19 18:30	
Nitrobenzene-d5		72.6	30-130					11/27/19 18:30	
2-Fluorobiphenyl		71.9	30-130					11/27/19 18:30	
2,4,6-Tribromophenol		79.2	30-130					11/27/19 18:30 11/27/19 18:30	
p-Terphenyl-d14		78.4	30-130					11/4//19 10:30	



Metals Analyses (Total)

Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019

Field Sample #: HB-1

Sampled: 11/19/2019 10:00

Sample ID: 19K1403-01
Sample Matrix: Soil

			Metals Analy						
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.5	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Arsenic	3.2	2.5	mg/Kg dry	I		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Barium	47	2.5	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Beryllium	0.57	0.25	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Cadmium	ND	0.25	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Chromium	11	0.50	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Lead	73	0.74	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Mercury	0.15	0.036	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:38	AJL
Nickel	9.0	0.50	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Selenium	ND	5.0	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:10	TBC
Silver	ND	0.50	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:10	TBC
Thailium	ND	2.5	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc
Vanadium	34	0.99	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 17:42	TBC
Zinc	44	0.99	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:28	tbc



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-1

Sample ID: 19K1403-01 Sample Matrix: Soil Sampled: 11/19/2019 10:00

Conventional	Chemistry	Parameters hy	EPA/APHA/SW-846 Methods (Total)
Conventionar	Cheunza A	Lat ameters by	ELMMI HMO W-040 Mcmons (Lutar

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids		66.3	,	% Wt	1		SM 2540G	11/25/19	11/26/19 10:34	adb



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

)ate Received: 11/22/2019 Field Sample #: HB-5

Sampled: 11/19/2019 12:00

Fluoranthene

Sample ID: 19K1403-02									
Samole Matrix: Soil									
			Semivolatile Organic C	ompounds	by GC/MS				
	D		WT*a .	Dil.	FI (0 1	36.41.3	Date	Date/Time	
Analyte Acenaphthene	Results	RL	Units	Dilution	Flag/Qual	Method SW-846 8270D-E	Prepared 11/24/19	Analyzed	Analyst
Acenaphthylene	ND ND	0.21	mg/Kg dry	1		SW-846 8270D-E SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB KLB
Acetophenone	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	
Aniline	ND	0.42	mg/Kg dry	I			11/24/19	11/27/19 18:53	KLB
Anthracene	ND	0.42	mg/Kg dry mg/Kg dry	1		SW-846 8270D-E SW-846 8270D-E	11/24/19	11/27/19 18:53 11/27/19 18:53	KLB KLB
Benzidine	ND	0.21	mg/Kg dry	1	MS-09, V-04, V-05,	SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
					V-35				
Benzo(a)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Benzo(a)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Benzo(b)fluoranthene	ND	0.21	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Benzo(g,h,i)perylene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Benzo(k)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Benzoic Acid	ND	1.2	mg/Kg dry	1	L-04, MS-09	SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Bis(2-chloroethoxy)methane	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Bis(2-chloroethyl)ether	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Bis(2-chloroisopropyl)ether	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
4-Bromophenylphenylether	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Sutylbenzylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Carbazole	ND	0.21	mg/Kg dry	1	77.24	SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
4-Chloroaniline	ND	0.82	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
4-Chloro-3-methylphenol	ND	0.82	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2-Chloronaphthalene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2-Chlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
4-Chlorophenylphenylether	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Chrysene Dibarra(a b) anthropera	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Dibenz(a,h)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Dibenzofuran Di a hatalatakalata	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Di-n-butylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
1,2-Dichlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
1,3-Dichlorobenzenc	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
1,4-Dichlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
3,3-Dichlorobenzidine	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2,4-Dichlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Diethylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2,4-Dimethylphenol	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Dimethylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
4,6-Dinitro-2-methylphenol	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2,4-Dinitrophenol	ND	0.82	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2,4-Dinitrotoluene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2,6-Dinitrotoluene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Di-n-octylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
1,2-Diphenylhydrazine/Azobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB

mg/Kg dry

1

ND

0.21

11/27/19 18:53

11/24/19

SW-846 8270D-E



Project Location: Beaver St., Waltham, MA

Sample Description:

98.9

30-130

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-5

Sampled: 11/19/2019 12:00

Sample ID: 19K1403-02

p-Terphenyl-d14

Sample Matrix: Soil									
		Sem	ivolatile Organic Co	mpounds by	GC/MS				
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Fluorene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Hexachlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Hexachlorobutadiene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Hexachlorocyclopentadiene	ND	0.42	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Hexachloroethane	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Indeno(1,2,3-cd)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Isophorone	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
1-Methylnaphthalene	ND	0.21	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2-Methylnaphthalene	ND	0.21	mg/Kg dry	i		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2-Methylphenol	ND	0.42	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
3/4-Methylphenol	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Naphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2-Nitroaniline	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
3-Nitroaniline	ND	0.42	mg/Kg dry	ł		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
4-Nitroaniline	ND	0.42	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Nitrobenzene	ND	0.42	mg/Kg dry	t		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2-Nitrophenol	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
-Nitrophenol	ND	0.82	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
N-Nitrosodimethylamine	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
N-Nitrosodi-n-propylamine	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Pentachloronitrobenzene	ND	0.42	mg/Kg dry	t		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Pentachlorophenol	ND	0.42	mg/Kg dry	ı	V-05	SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Phenanthrene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
PhenoI	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Pyridine	ND	0.42	mg/Kg dry	1	MS-09	SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
1,2,4-Trichlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2,4,5-Trichlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
2,4,6-Trichlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 18:53	KLB
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
2-Fluorophenol	* * * * * * * * * * * * * * * * * * * *	75.4	30-130			***************************************		11/27/19 18:53	
Phenol-d6		76.7	30-130					11/27/19 18:53	
Nitrobenzene-d5		74.3	30-130					11/27/19 18:53	
2-Fluorobiphenyl		77.7	30-130					11/27/19 18:53	
2,4,6-Tribromophenol		84.6	30-130					11/27/19 18:53	

11/27/19 18:53



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-5

Sampled: 11/19/2019 12:00

Sample ID: 19K1403-02
Sample Matrix: Soil

Metals Analyses (Total)												
							Date	Date/Time				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst			
Antimony	32	2.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	tbc			
Arsenic	11	2.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	tbc			
Barium	450	2.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	tbc			
Beryllium	0.28	0.21	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	tbc			
Cadmium	29	0.21	mg/Kg dry	I		SW-846 6010D	11/26/19	11/27/19 18:34	tbc			
Chromium	73	0.41	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	tbc			
Lead	2700	0.62	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	tbc			
Mercury	0.90	0.031	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:40	AJL			
Nickel	170	0.41	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	tbc			
Selenium	ND	4.1	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:16	TBC			
Silver	130	0.41	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:16	TBC			
Thallium	ND	2.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	lbc			
Vanadium	27	0.83	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 17:49	TBC			
Zinc	5100	4.1	mg/Kg dry	5		SW-846 6010D	11/26/19	12/3/19 12:21	МЈН			



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019

Field Sample #: HB-5

Sampled: 11/19/2019 12:00

Sample ID: 19K1403-02 Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

									Date	Date/Time	
	Analyte	Results	RL	U	nits	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids		80.3		%	Wt	1		SM 2540G	11/25/19	11/26/19 10:35	adb



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019
Field Sample #: HB-6

Sampled: 11/20/2019 08:30

Sample ID: 19K1403-03
Sample Matrix: Soil

			Semivolatile Organic C	ompounds s			Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Acenaphthene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Acenaphthylene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Acctophenone	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Aniline	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Anthracene	ND	0.30	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Benzidine	ND	1.2	mg/Kg dry	I	V-04, V-05, V-35	SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Benzo(a)anthracene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Benzo(a)pyrene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Benzo(b)fluoranthene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Benzo(g,h,i)perylene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Benzo(k)fluoranthene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Benzoic Acid	ND	1.8	mg/Kg dry	1	L-04	SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Bis(2-chloroethoxy)methane	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Bis(2-chloroethyl)ether	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Bis(2-chloroisopropyl)ether	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
4-Bromophenylphenylether	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Butylbenzylphthalate	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Carbazolc	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
4-Chloroaniline	ND	1.2	mg/Kg dry	ı	V-34	SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
4-Chloro-3-methylphenol	ND	1.2	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2-Chloronaphthalene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2-Chlorophenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
4-Chlorophenylphenylether	ND	0.60	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Chrysene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Dibenz(a,h)anthracene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Dibenzofuran	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Di-n-butylphthalate	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
1,2-Dichlorobenzene	ND	0.60	mg/Kg dry	9		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
1,3-Dichlorobenzene	ND	0.60	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
1,4-Dichlorobenzene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
3,3-Dichlorobenzidine	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2,4-Dichlorophenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Diethylphthalate	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2,4-Dimethylphenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Dimethylphthalate	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
4,6-Dinitro-2-methylphenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
				1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2,4-Dinitrophenol	ND	1.2	mg/Kg dry						KLB
2,4-Dinitrotoluene 2.6-Dinitrotoluene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	
Di-n-octylphthalate	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
.,2-Diphenylhydrazine/Azobenzene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Fluoranthene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Fluorene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB

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Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

vate Received: 11/22/2019 Field Sample #: HB-6

Sampled: 11/20/2019 08:30

Sample ID: 19K1403-03 Sample Matrix: Soil

Sample Matrix: Soil		Sem	ivolatile Organic C	ompounds by	GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Hexachlorobutadiene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Hexachlorocyclopentadiene	ND	0.60	mg/Kg dry	\$	V-05	SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Hexachioroethane	ND	0.60	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Indeno(1,2,3-cd)pyrene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Isophorone	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
1-Methylnaphthalene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2-Methylnaphthalene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2-Methylphenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
3/4-Methylphenol	ND	0.60	mg/Kg dry	i		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Naphthalene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2-Nitroaniline	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
3-Nitroaniline	ND	0.60	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
4-Nitroaniline	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Nitrobenzene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2-Nitrophenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
4-Nitrophenol	ND	1.2	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
-Nitrosodimethylamine	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
N-Nitrosodi-n-propylamine	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Pentachloronitrobenzene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Pentachlorophenol	ND	0.60	mg/Kg dry	ī	V-05	SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Phenanthrene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Phenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Pyrene	ND	0.30	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Pyridine	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
1,2,4,5-Tetrachiorobenzene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
1,2,4-Trichlorobenzene	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2,4,5-Trichlorophenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
2,4,6-Trichlorophenol	ND	0.60	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:15	KLB
Surrogates		% Recovery	Recovery Limit	s	Flag/Qual				
2-Fluorophenol		76.2	30-130					11/27/19 19:15	
Phenol-d6		77.6	30-130					11/27/19 19:15	
Nitrobenzene-d5		71.5	30-130					11/27/19 19:15	
2-Fluorobiphenyl		71.6	30-130 30-130					11/27/19 19:15 11/27/19 19:15	
2,4,6-Tribromophenol p-Terphenyl-d14		77.7 80.1	30-130					11/27/19 19:15	
h varburant, ar			50.150						



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Oate Received: 11/22/2019
Field Sample #: HB-6

Sampled: 11/20/2019 08:30

Sample ID: 19K1403-03
Sample Matrix: Soil

Metals	Analy	292	(Total)

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Antimony	ND	2.9	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Arsenic	5.3	2.9	mg/Kg dry	I		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Barium	45	2.9	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Beryllium	0.43	0.29	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Cadmium	ND	0.29	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Chromium	14	0.58	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Lead	170	0.87	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Mercury	0.21	0.043	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:42	AJL
Nickel	22	0.58	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Selenium	ND	5.8	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:23	TBC
Silver	ND	0.58	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:23	TBC
Thallium	ND	2.9	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc
Vanadium	41	1.2	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:09	TBC
Zinc	63	1.2	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	tbc



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019

Field Sample #: HB-6

Sampled: 11/20/2019 08:30

Sample ID: 19K1403-03
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

									Date	Date/Time	
	Analyte	Results	RL	Uni	s I	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids		55.9		% V	7t	1		SM 2540G	11/25/19	11/26/19 10:36	adb



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-7

Sampled: 11/20/2019 09:00

Sample ID: 19K1403-04
Sample Matrix: Soil

		Se	mivolatile Organic C	ompounds b	y GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analys
Acenaphthene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Acenaphthylene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Acetophenone	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Aniline	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Anthracene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Benzidine	ND	1.2	mg/Kg dry	1	V-04, V-05, V-35	SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Benzo(a)anthracene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Benzo(a)pyrene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Benzo(b)fluoranthene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Benzo(g,h,i)perylene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Benzo(k)fluoranthene	ND	0.32	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Benzoic Acid	ND	1.9	mg/Kg dry	ı	L-04	SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Bis(2-chloroethoxy)methane	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Bis(2-chloroethyl)ether	ND	0.64	mg/Kg dry	£		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Bis(2-chloroisopropyl)ether	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
4-Bromophenylphenylether	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
lutylbenzylphthalate	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Carbazole	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
4-Chloroaniline	ND	1.2	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
4-Chloro-3-methylphenol	ND	1.2	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2-Chloronaphthalene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2-Chlorophenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
4-Chlorophenylphenylether	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Chrysene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Dibenz(a,h)anthracene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Dibenzofuran	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Di-n-butylphthalate	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
1,2-Dichlorobenzene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
3-Dichlorobenzene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
,4-Dichlorobenzene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
3,3-Dichlorobenzidine	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2,4-Dichlorophenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Diethylphthalate	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
4,4-Dimethylphenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Dimethylphthalate	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
,6-Dinitro-2-methylphenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
,4-Dinitrophenol	ND	1.2	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
,4-Dinitrotolucne	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
,6-Dinitrotoluene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Pi-n-octylphthalate	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2-Diphenylhydrazine/Azobenzene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
luoranthene	0.39	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
luorene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB

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Project Location: Beaver St., Waltham, MA

Sample Description: Work Order: 19K1403

'Date Received: 11/22/2019 Field Sample #: HB-7

Sampled: 11/20/2019 09:00

Sample ID: 19K1403-04 Sample Matrix: Soil

Semivo	latile Ore	ranic Com	nounds by	GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Hexachlorobutadiene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Hexachlorocyclopentadiene	ND	0.64	mg/Kg dry	ı	V-05	SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Hexachloroethane	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Indeno(1,2,3-cd)pyrene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Isophorone	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
1-Methylnaphthalene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2-Methylnaphthalene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2-Methylphenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
3/4-Methylphenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Naphthalene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2-Nitroaniline	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
3-Nitroaniline	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
4-Nitroaniline	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Nitrobenzene	ND	0.64	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2-Nitrophenol	ND	0.64	mg/Kg dry	ι		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
4-Nitrophenol	ND	1.2	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
N-Nitrosodimethylamine	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
N-Nitrosodi-n-propylamine	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Pentachloronitrobenzene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Pentachlorophenol	ND	0.64	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Phenanthrene	ND	0.32	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Phenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Pyrene	0.43	0.32	mg/Kg dry	ī		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Pyridine	ND	0.64	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
1,2,4-Trichlorobenzene	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2,4,5-Trichlorophenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
2,4,6-Trichlorophenol	ND	0.64	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 19:38	KLB
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
2-Fluorophenol		53.6	30-130					11/27/19 19:38	
Phenol-d6		57.7	30-130					11/27/19 19:38	
Nitrobenzene-d5		51.5	30-130					11/27/19 19:38	
2-Fluorobiphenyl		56.8	30-130					11/27/19 19:38	
2,4,6-Tribromophenol p-Terphenyl-d14		61.8 68.6	30-130 30-130					11/27/19 19:38 11/27/19 19:38	



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

rate Received: 11/22/2019
Field Sample #: HB-7

Sampled: 11/20/2019 09:00

Sample ID: 19K1403-04
Sample Matrix: Soil

				Metals Analy	ses (Total)					
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony		ND	3.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	tbc
Arsenic		9.1	3.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	tbc
Barium		47	3.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	tbc
Beryllium		0.47	0.31	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	tbc
Cadmium		ND	0.31	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	tbc
Chromium		15	0.62	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	tbc
Lead		180	0.93	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	tbc
Mercury		0.30	0.046	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:43	AJL
Nickel		22	0.62	mg/Kg dry	I		SW-846 6010D	11/26/19	11/27/19 18:47	tbc
Selenium		ND	6.2	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:29	TBC
Silver		ND	0.62	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:29	TBC
Thallium		ND	3.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	(bc
Vanadium		47	1.2	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:15	TBC
Zinc		64	1.2	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	tbc



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

late Received: 11/22/2019

Field Sample #: HB-7

Sampled: 11/20/2019 09:00

Sample ID: 19K1403-04
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

							Date	Date/Time	
Anal	yte Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids	53.1		% Wt	I		SM 2540G	11/25/19	11/26/19 10:36	adb



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Tate Received: 11/22/2019 rield Sample #: HB-8 Sample ID: 19K1403-05

Sample Matrix: Soil

Sampled: 11/20/2019 09:30

Semivolatile Organic Compounds by GC/MS

		5	Semivolatile Organic C	ompounds b	y GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Acenaphthylene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Acetophenone	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Aniline	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Anthracene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Benzidine	ND	1.4	mg/Kg dry	1	V-04, V-05, V-35	SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Benzo(a)anthracene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Benzo(a)pyrene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Benzo(b)fluoranthene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Benzo(g,h,i)perylene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Benzo(k)fluoranthene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Benzoic Acid	ND	2.1	mg/Kg dry	1	L-04	SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Bis(2-chloroethoxy)methane	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Bis(2-chloroethyl)ether	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Bis(2-chloroisopropyl)ether	ND	0.73	mg/Kg dry	t		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
4-Bromophenylphenylether	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Butylbenzylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
L'arbazole	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
4-Chloroaniline	ND	1.4	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
4-Chloro-3-methylphenol	ND	1.4	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2-Chloronaphthalene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2-Chlorophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
4-Chlorophenylphenylether	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Chrysene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Dibenz(a,h)anthracene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Dibenzofuran	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Di-n-butylphthalate	ND	0.73	mg/Kg dry	i		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
1,2-Dichlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
1,3-Dichlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
1,4-Dichlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
3,3-Dichlorobenzidine	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2,4-Dichlorophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Diethylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2,4-Dimethylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Dimethylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
4,6-Dinitro-2-methylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2,4-Dinitrophenol	ND	1.4	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2,4-Dinitrotoluene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2,6-Dinitrotoluene	ND	0.73	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Di-n-octylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2-Diphenylhydrazine/Azobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Fluoranthene	0.43	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Fluorene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB

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Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

ate Received: 11/22/2019

Field Sample #: HB-8

Sampled: 11/20/2019 09:30

Sample ID: 19K1403-05
Sample Matrix: Soil

p-Terphenyl-d14

	•	Semi	ivolatile Organic C	ompounds by	GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analys
Hexachlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Hexachlorobutadiene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Hexachlorocyclopentadiene	ND	0.73	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Hexachloroethane	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Indeno(1,2,3-cd)pyrene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Isophorone	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
1-Methylnaphthalenc	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2-Methylnaphthalene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2-Methylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
3/4-Methylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Naphthalene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2-Nitroaniline	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
3-Nitroaniline	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
4-Nitroaniline	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Nitrobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2-Nitrophenol	ND	0.73	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
4-Nitrophenol	ND	1.4	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
-Nitrosodimethylamine	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
N-Nitrosodi-n-propylamine	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Pentachloronitrobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Pentachlorophenol	ND	0.73	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Phenanthrene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Phenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Pyrene	0.48	0.36	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Pyridine	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
1,2,4-Trichlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2,4,5-Trichlorophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
2,4,6-Trichlorophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:01	KLB
Surrogates		% Recovery	Recovery Limit	s	Flag/Qual				
2-Fluorophenol		68.8	30-130		//			11/27/19 20:01	
Phenol-d6		71.0	30-130					11/27/19 20:01	
Nitrobenzene-d5		66.6	30-130					11/27/19 20:01	
2-Fluorobiphenyl		68.4	30-130					11/27/19 20:01	
2,4,6-Tribromophenol		76.9	30-130					11/27/19 20:01	

30-130

84.1

11/27/19 20:01



Project Location: Beaver St., Waltham, MA

Analyte

Sample Description:

Results

ND

5.3

51

0.54

ND

16

160

0.22

13

ND

ND

ND

49

78

3.6

1.4

1.4

mg/Kg dry

mg/Kg dry

mg/Kg dry

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Work Order: 19K1403

Date Received: 11/22/2019 Field Sample #: HB-8

Sampled: 11/20/2019 09:30

Sample ID: 19K1403-05
Sample Matrix: Soil

Antimony

Arsenic

Barium

Beryllium

Cadmium

Chromium

Lead

Mercury

Selenium

Thallium

Vanadium

Nickel

Silver

Zinc

	Metals Analy	yses (Total)					
RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
3.6	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	tbc
3.6	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	tbc
3.6	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	tbc
0.36	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	tbc
0.36	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	tbc
0.72	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	tbc
1.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	tbc
0.057	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:45	AJL
0.72	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	tbc
7.2	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:35	TBC
0.72	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:35	TBC

SW-846 6010D

SW-846 6010D

SW-846 6010D

11/26/19

11/26/19

11/26/19

11/27/19 18:53

11/27/19 18:22

11/27/19 18:53

tbc

TBC

tbc



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019

Field Sample #: HB-8

Sampled: 11/20/2019 09:30

Sample ID: 19K1403-05
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids		45.7		% Wt	1		SM 2540G	11/25/19	11/26/19 10:36	adb



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-9

Sample ID: 19K1403-06
Sample Matrix: Soil

Sampled: 11/20/2019 10:00

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Acenaphthylene	ND	0.39	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Acetophenone	ND	0.79	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Aniline	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Anthracene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Benzidine	ND	1.5	mg/Kg dry	1	V-04, V-05, V-35	SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Benzo(a)anthracene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Benzo(a)pyrene	ND	0.39	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Benzo(b)fluoranthene	0.43	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Benzo(g,h,i)perylene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Benzo(k)fluoranthene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Benzoic Acid	ND	2.3	mg/Kg dry	Į.	L-04	SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Bis(2-chlorocthoxy)methane	ND	0.79	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Bis(2-chloroethyl)ether	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Bis(2-chloroisopropyl)ether	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
4-Bromophenylphenylether	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Sutylbenzylphthalate	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Jarbazole	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
4-Chloroaniline	ND	1.5	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
4-Chioro-3-methylphenol	ND	1.5	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2-Chloronaphthalene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2-Chlorophenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
4-Chlorophenylphenylether	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Chrysene	0.41	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Dibenz(a,h)anthracene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Dibenzofuran	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Di-n-butylphthalate	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
1,2-Dichlorobenzene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
1,3-Dichlorobenzene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
1,4-Dichlorobenzene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
3,3-Dichlorobenzidine	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2,4-Dichlorophenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Diethylphthalate	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2,4-Dimethylphenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Dimethylphthalate	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
4,6-Dinitro-2-methylphenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2,4-Dinitrophenol	ND	1.5	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2,4-Dinitrotoluene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2,6-Dinitrotoluene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Di-n-octylphthalate	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2-Diphenylhydrazine/Azobenzene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Fluoranthene	0.68	0.39	mg/Kg dry	9		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Fluorene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB

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Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

)ate Received: 11/22/2019 Field Sample #: HB-9

Sampled: 11/20/2019 10:00

Sample ID: 19K1403-06 Sample Matrix: Soil

Samole Matrix: Soil		Sem	ivolatile Organic C	ompounds by	GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.79	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Hexachlorobutadiene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Hexachlorocyclopentadiene	ND	0.79	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Hexachlorocthane	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Indeno(1,2,3-cd)pyrene	ND	0.39	mg/Kg dry	3		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Isophorone	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
1-Methylnaphthalene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2-Methylnaphthalene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2-Methylphenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
3/4-Methylphenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Naphthalene	ND	0.39	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2-Nitroaniline	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
3-Nitroaniline	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
4-Nitroaniline	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Nitrobenzene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2-Nitrophenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
4-Nitrophenol	ND	1.5	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
-Nitrosodimethylamine	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
N-Nitrosodi-n-propylamine	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Pentachloronitrobenzene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Pentachlorophenol	ND	0.79	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Phenanthrene	ND	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Phenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Pyrene	0.74	0.39	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Pyridine	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
1,2,4-Trichlorobenzene	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2,4,5-Trichlorophenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
2,4,6-Trichlorophenol	ND	0.79	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:23	KLB
Surrogates		% Recovery	Recovery Limit	s	Flag/Qual				
2-Fluorophenol		63.6	30-130					11/27/19 20:23	
Phenol-d6		65.6	30-130					11/27/19 20:23	
Nitrobenzene-d5		60.8	30-130					11/27/19 20:23	
2-Fluorobiphenyl		61.6	30-130					11/27/19 20:23	
2,4,6-Tribromophenol		67.2	30-130					11/27/19 20:23	
p-Terphenyl-d14		73.7	30-130					11/27/19 20:23	



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019

Field Sample #: HB-9

Sampled: 11/20/2019 10:00

Sample ID: 19K1403-06 Sample Matrix: Soil

Sample Matrix. Son			Metals Analy	ses (Total)					
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Arsenic	7.0	3.8	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Barium	54	3.8	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Beryllium	0.41	0.38	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Cadmium	ND	0.38	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Chromium	16	0.76	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Lead	200	1.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Mercury	0.22	0.059	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:46	AJL
Nickel	18	0.76	mg/Kg dry	ī		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Sclenium	ND	7.6	mg/Kg dry	I		SW-846 6010D	11/26/19	12/3/19 0:42	TBC
Silver	ND	0.76	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:42	TBC
Thallium	ND	3.8	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc
Vanadium	42	1.5	mg/Kg dry	I		SW-846 6010D	11/26/19	11/27/19 18:28	TBC
Zinc	140	1.5	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:59	tbc



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019

Field Sample #: HB-9

Sampled: 11/20/2019 10:00

Sample ID: 19K1403-06
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids		42.7		% Wt	1		SM 2540G	11/25/19	11/26/19 10:37	adb



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-10

Sampled: 11/20/2019 10:30

Sample ID: 19K1403-07 Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Acenaphthylene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Acetophenone	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Aniline	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Anthracene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Benzidine	ND	1.5	mg/Kg dry	1	V-04, V-05, V-35	SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Benzo(a)anthracene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Benzo(a)pyrene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Benzo(b)fluoranthene	0.39	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Benzo(g,h,i)perylene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Benzo(k)fluoranthene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Benzoic Acid	ND	2.2	mg/Kg dry	1	L-04	SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Bis(2-chloroethoxy)methane	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Bis(2-chloroethyl)ether	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Bis(2-chloroisopropyl)ether	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
4-Bromophenylphenylether	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Butylbenzylphthalate	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Carbazole	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
4-Chloroaniline	ND	1.5	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
4-Chloro-3-methylphenol	ND	1.5	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2-Chloronaphthalene	ND	0.75	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2-Chlorophenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
4-Chlorophenylphenylether	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Chrysene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Dibenz(a,h)anthracene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Dibenzofuran	ND	0.75	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Dí-n-butylphthalate	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
1,2-Dichlorobenzene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
1,3-Dichlorobenzene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
1,4-Dichlorobenzene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
3,3-Dichlorobenzidine	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2,4-Dichlorophenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Diethylphthalate	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2,4-Dimethylphenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Dimethylphthalate	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
1,6-Dinitro-2-methylphenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2,4-Dinitrophenol	ND	1.5	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2,4-Dinitrotoluene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2,6-Dinitrotoluene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Di-n-octylphthalate	ND	0.75	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2-Diphenylhydrazine/Azobenzene	ND	0.75	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Fluoranthene	0.60	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
	0.00	0.38		1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB

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Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019 Field Sample #: HB-10

Sampled: 11/20/2019 10:30

Sample ID: 19K1403-07 Sample Matrix: Soil

C1-421-	0	C 3-	L	CCDAC
Semivolatile	vryanic	Compounds	DV	CIL/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date	Date/Time	A a I 4
Hexachlorobenzene	ND	0.75		1	Flag/Qual	SW-846 8270D-E	Prepared	Analyzed	Analyst
Hexachlorobutadiene	ND	0.75	mg/Kg dry				11/24/19	11/27/19 20:46	KLB
			mg/Kg dry	į.	1/05	SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Hexachlorocyclopentadiene	ND	0.75	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Hexachloroethane	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Indeno(1,2,3-cd)pyrene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Isophoronc	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
1-Methylnaphthalene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2-Methylnaphthalene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2-Methylphenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
3/4-Methylphenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Naphthalene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2-Nitroaniline	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
3-Nitroaniline	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
4-Nitroaniline	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Nitrobenzene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2-Nitrophenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
4-Nitrophenol	ND	1.5	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
I-Nitrosodimethylamine	ND	0.75	mg/Kg đry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
N-Nitrosodi-n-propylamine	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Pentachloronitrobenzene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Pentachlorophenol	ND	0.75	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Phenanthrene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Phenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Рутепе	0.67	0.38	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Pyridine	ND	0.75	mg/Kg dry	i		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
1,2,4-Trichlorobenzene	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2,4,5-Trichlorophenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
2,4,6-Trichlorophenol	ND	0.75	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 20:46	KLB
Surrogates		% Recovery	Recovery Limit	s	Flag/Qual				
2-Fluorophenol		63.2	30-130					11/27/19 20:46	
Phenol-d6		65.7	30-130					11/27/19 20:46	
Nitrobenzene-d5		61.6	30-130					11/27/19 20:46	
2-Fluorobiphenyl		67.0	30-130					11/27/19 20:46	
2,4,6-Tribromophenol		71.6	30-130					11/27/19 20:46	
p-Terphenyl-d14		85.4	30-130					11/27/19 20:46	



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019
Field Sample #: HB-10

Sampled: 11/20/2019 10:30

Sample ID: 19K1403-07 Sample Matrix: Soil

				Metals Analy	yses (Total)					
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony		ND	3.8	mg/Kg dry	I		SW-846 6010D	11/26/19	11/27/19 19:04	tbc
Arsenic		12	3.8	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:04	tbc
Barium		50	3.8	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:04	tbc
Beryllium		0.51	0.38	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:04	tbc
Cadmium		0.41	0.38	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:04	tbc
Chromium		16	0.77	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:04	tbc
Lead		270	1.1	mg/Kg dry	1		SW-846 6010D	11/26/19	[1/27/19 19:04	tbc
Mercury		0.29	0.056	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:48	AJL
Nickel		19	0.77	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:04	tbc
Selenium		ND	7.7	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:48	TBC
Silver		ND	0.77	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 0:48	TBC
Thallium		ND	3.8	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:04	tbc
Vanadium		66	1.5	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:34	TBC
Zinc		110	1.5	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:04	tbc



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-10

Sampled: 11/20/2019 10:30

Sample ID: 19K1403-07 Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids	44.1		% Wt	1		SM 2540G	11/25/19	11/26/19 10:37	adb



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019 Field Sample #: HB-11

Sampled: 11/20/2019 11:00

Sample ID: 19K1403-08
Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Acenaphthylene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Acetophenone	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Aniline	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Anthracene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Benzidine	ND	1.1	mg/Kg dry	1	V-04, V-05, V-35	SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Benzo(a)anthracene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Benzo(a)pyrene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Benzo(b)fluoranthene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Benzo(g,h,i)perylene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Benzo(k)fluoranthene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Benzoic Acid	ND	1.6	mg/Kg dry	1	L-04	SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Bis(2-chloroethoxy)methane	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Bis(2-chloroethyl)ether	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Bis(2-chloroisopropyl)ether	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
4-Bromophenylphenylether	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Sutylbenzylphthalate	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Carbazolc	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
4-Chloroaniline	ND	1.1	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
4-Chloro-3-methylphenol	ND	1.1	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2-Chloronaphthalene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2-Chlorophenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
4-Chlorophenylphenylether	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Chrysene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Dibenz(a,h)anthracene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Dibenzofuran	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Di-n-butylphthalate	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
1,2-Dichlorobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
1,3-Dichlorobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
1,4-Dichlorobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
3,3-Dichlorobenzidine	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2,4-Dichlorophenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Diethylphthalate	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2,4-Dimethylphenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Dimethylphthalate	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
4,6-Dinitro-2-methylphenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2,4-Dinitrophenol	ND	1.1	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2,4-Dinitrotoluene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2,6-Dinitrotoluene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Di-n-octylphthalate	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
1,2-Diphenylhydrazine/Azobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Fluoranthene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Fluorene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB

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Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019 Field Sample #: HB-11

Sampled: 11/20/2019 11:00

Sample ID: 19K1403-08 Sample Matrix: Soil

Semivolatile Or	ganic Compounds	bv	GC/MS
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Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Hexachlorobutadiene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Hexachlorocyclopentadiene	ND	0.56	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Hexachloroethane	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Indeno(1,2,3-cd)pyrene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Isophorone	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
1-Methylnaphthalene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2-Methylnaphthalene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2-Methylphenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
3/4-Methylphenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Naphthalene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2-Nitroaniline	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
3-Nitroaniline	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
4-Nitroaniline	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Nitrobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2-Nitrophenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
4-Nitrophenol	ND	1.1	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
V-Nitrosodimethylamine	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
N-Nitrosodi-n-propylamine	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Pentachloronitrobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Pentachlorophenol	ND	0.56	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Phenanthrene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Phenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Pyrene	ND	0.28	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Pyridine	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
1,2,4-Trichlorobenzene	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2,4,5-Trichlorophenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
2,4,6-Trichlorophenol	ND	0.56	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:09	KLB
Surrogates		% Recovery	Recovery Limit	s	Flag/Qual				
2-Fluorophenol		65.4	30-130					11/27/19 21:09	
Phenol-d6		68.3 64.8	30-130 30-130					11/27/19 21:09 11/27/19 21:09	
Nitrobenzene-d5 2-Fluorobíphenyl		69.5	30-130					11/27/19 21:09	
2,4,6-Tribromophenol		74.5	30-130					11/27/19 21:09	



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019

Field Sample #: HB-11

Sampled: 11/20/2019 11:00

Sample ID: 19K1403-08
Sample Matrix: Soil

Dumoto Hauta. Oon			Metals Analy	yses (Total)					
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.7	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Arsenic	4.9	2.7	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Barium	58	2.7	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Beryllium	0.53	0.27	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Cadmium	ND	0.27	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Chromium	14	0.55	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Lead	120	0.82	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Mercury	0.11	0.039	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:50	AJL
Nickel	10	0.55	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Selenium	ND	5.5	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 1:12	TBC
Silver	ND	0.55	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 1:12	TBC
Thallium	ND	2.7	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc
Vanadium	38	1.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:41	TBC
Zinc	59	1.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:10	tbc

Work Order: 19K1403



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Beaver St., Waltham, MA Sample Description:

Date Received: 11/22/2019
Field Sample #: HB-11

Sample ID: 19K1403-08
Sample Matrix: Soil

Sampled: 11/20/2019 11:00

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids		60.5		% Wt	1		SM 2540G	11/25/19	11/26/19 10:37	adb

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-14

Sampled: 11/20/2019 12:00

Sample ID: 19K1403-09
Sample Matrix: Soil

			Semivolatile Organic C	ompounds b	y GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.37	mg/Kg dry	I	1.146. Grist	SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Acenaphthylene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Acetophenone	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Aniline	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Anthracene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Benzidine	ND	1.4	mg/Kg dry	1	V-04, V-05, V-35	SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Benzo(a)anthracene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Benzo(a)pyrene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Benzo(b)fluoranthene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Benzo(g,h,i)perylene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Benzo(k)fluoranthene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Benzoic Acid	ND	2.2	mg/Kg dry	1	L-04	SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Bis(2-chloroethoxy)methane	ND	0.73	mg/Kg dry	ι		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Bis(2-chloroethyl)ether	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Bis(2-chloroisopropyl)ether	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
4-Bromophenylphenylether	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Butylbenzylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Carbazolc	ND	0.37	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
4-Chloroaniline	ND	1.4	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
4-Chloro-3-methylphenol	ND	1.4	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2-Chloronaphthalene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2-Chlorophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
4-Chlorophenylphenylether	ND	0.73	mg/Kg dry	l		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Chrysene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Dibenz(a,h)anthracene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Dibenzofuran	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Di-n-butylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
1,2-Dichlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
1,3-Dichlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
1,4-Dichlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
3,3-Dichlorobenzidine	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2,4-Dichlorophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Diethylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2,4-Dimethylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Dimethylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
4,6-Dinitro-2-methylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2,4-Dinitrophenol	ND	1.4	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2,4-Dinitrotoluene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2,6-Dinitrotoluene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Di-n-octylphthalate	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
,2-Diphenylhydrazine/Azobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Fluoranthene	0.39	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Fluorene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

vate Received: 11/22/2019

Field Sample #: HB-14

Sampled: 11/20/2019 12:00

Sample ID: 19K1403-09
Sample Matrix: Soil

		Semi	ivolatile Organic Co	mpounds by	GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Quai	Method	Date Prepared	Date/Time Analyzed	Analys
Hexachlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Hexachlorobutadiene	ND	0.73	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Hexachlorocyclopentadiene	ND	0.73	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Hexachloroethane	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Indeno(1,2,3-cd)pyrene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Isophorone	ND	0.73	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
1-Methylnaphthalene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2-Methylnaphthalene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2-Methylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
3/4-Methylphenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Naphthalene	ND	0.37	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2-Nitroaniline	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
3-Nitroaniline	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
4-Nitroaniline	ND	0.73	mg/Kg dry	i		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Nitrobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2-Nitrophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
4-Nitrophenol	ND	1.4	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
I-Nitrosodimethylamine	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
N-Nitrosodi-n-propylamine	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Pentachloronitrobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Pentachlorophenol	ND	0.73	mg/Kg dry	ı	V-05	SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Phenanthrene	ND	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Phenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Pyrene	0.42	0.37	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Pyridine	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
1,2,4-Trichlorobenzene	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2,4,5-Trichlorophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
2,4,6-Trichlorophenol	ND	0.73	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:31	KLB
Surrogates		% Recovery	Recovery Limits	1	Flag/Qual				
2-Fluorophenol		69.8	30-130					11/27/19 21:31	
Phenol-d6		74.2	30-130					11/27/19 21:31	
Nitrobenzene-d5		69.4	30-130					11/27/19 21:31	
2-Fluorobiphenyl		68.2	30-130					11/27/19 21:31	
2,4,6-Tribromophenol		74.4	30-130					11/27/19 21:31	
p-Terphenyl-d14		75.2	30-130					11/27/19 21:31	



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Date Received: 11/22/2019
Field Sample #: HB-14

Sampled: 11/20/2019 12:00

Sample ID: 19K1403-09
Sample Matrix: Soil

Matala	A males	ses (Total	I
MICLARS	Allaiv	SCS LIGIA	.,

Analyte	e Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Arsenic	6.3	3.7	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Barium	54	3.7	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Beryllium	0.56	0.37	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Cadmium	ND	0.37	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Chromium	15	0.73	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Lead	150	1.1	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Mercury	0.23	0.054	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:51	AJL
Nickel	13	0.73	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Selenium	ND	7.3	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 1:18	TBC
Silver	ND	0.73	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 1:18	TBC
Thallium	ND	3.7	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc
Vanadium	54	1.5	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:47	TBC
Zinc	73	1.5	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:16	tbc



oject Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

/ate Received: 11/22/2019
Field Sample #: HB-14
Sample ID: 19K1403-09

Sample Matrix: Soil

Sampled: 11/20/2019 12:00

Samble Mauri		Conventional Chemi	istry Parameters b	y EPA/APHA/	SW-846 Methods (Total)			
							Date	Date/Time	
	Analyte	Results RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids		45.7	% Wt	1		SM 2540G	11/25/19	11/26/19 10:38	adb



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019 Field Sample #: HB-15

Sampled: 11/20/2019 13:00

Fluorene

ND

0.22

mg/Kg dry

		Ser	nivolatile Organic C	ompounds b	y GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analys
Acenaphthene	ND	0.22	mg/Kg dry	1	1110 2111	SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Acenaphthylene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Acetophenone	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Aniline	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Benzidine	ND	0.86	mg/Kg dry	1	V-35, V-04, V-05	SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Benzo(a)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Benzo(a)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Benzo(b)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Benzo(g,h,i)perylene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Benzoic Acid	ND	1.3	mg/Kg dry	ı	L-04	SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Bis(2-chloroethoxy)methane	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Bis(2-chloroethyl)ether	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Bis(2-chloroisopropyl)ether	ND	0.44	mg/Kg dry	t		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Bis(2-Ethylhexyl)phthalate	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
4-Bromophenylphenylether	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
lutylbenzylphthalate	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Carbazole	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
4-Chloroaniline	ND	0.86	mg/Kg dry	1	V-34	SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
4-Chloro-3-methylphenol	ND	0.86	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2-Chloronaphthalene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2-Chlorophenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
4-Chlorophenylphenylether	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Chrysene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Dibenzofuran	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Di-n-butylphthalate	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
1,2-Dichlorobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
1,3-Dichlorobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
1,4-Dichlorobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
3,3-Dichlorobenzidine	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2,4-Dichlorophenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Diethylphthalate	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2,4-Dimethylphenol	ND	0.44	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Dimethylphthalate	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
,6-Dinitro-2-methylphenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
4,4-Dinitrophenol	ND	0.86	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
,4-Dinitrotoluene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
,6-Dinitrotoluene	ND	0.44	mg/Kg dry	I		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Di-n-octylphthalate	ND	0.44	mg/Kg dry	ı		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
,2-Diphenylhydrazine/Azobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
luoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB

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11/24/19 11/27/19 21:54 KLB

SW-846 8270D-E



roject Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019 Field Sample #: HB-15

Sampled: 11/20/2019 13:00

Sample ID: 19K1403-10 Sample Matrix: Soil

Samole Matrix: Soil		Semi	ivolatile Organic Co	ompounds by	GC/MS				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Hexachlorobutadiene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Hexachlorocyclopentadiene	ND	0.44	mg/Kg dry	I	V-05	SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Hexachloroethane	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Isophorone	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
1-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2-Methylnaphthalene	ND	0.22	mg/Kg dry	1	•	SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2-Methylphenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
3/4-Methylphenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Naphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2-Nitroaniline	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
3-Nitroaniline	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
4-Nitroaniline	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Nitrobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2-Nitrophenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
4-Nitrophenol	ND	0.86	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
I-Nitrosodimethylamine	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
N-Nitrosodiphenylamine/Diphenylamine	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
N-Nitrosodi-n-propylamine	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Pentachloronitrobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Pentachlorophenol	ND	0.44	mg/Kg dry	1	V-05	SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Phenanthrene	ND	0.22	mg/Kg dry	ī		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Phenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Pyridine	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
1,2,4,5-Tetrachlorobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
1,2,4-Trichlorobenzene	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2,4,5-Trichlorophenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
2,4,6-Trichlorophenol	ND	0.44	mg/Kg dry	1		SW-846 8270D-E	11/24/19	11/27/19 21:54	KLB
Surrogates		% Recovery	Recovery Limit	S	Flag/Qual				
2-Fluorophenol		72.7	30-130					11/27/19 21:54	
Phenol-d6		77.1	30-130					11/27/19 21:54	
Nitrobenzene-d5		68.6	30-130					11/27/19 21:54	
2-Fluorobiphenyl		67.6	30-130					11/27/19 21:54	
2,4,6-Tribromophenol		78.9	30-130					11/27/19 21:54 11/27/19 21:54	
p-Terphenyl-d14		78.6	30-130					11121119 21:34	



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019
Field Sample #: HB-15

Sampled: 11/20/2019 13:00

Sample ID: 19K1403-10 Sample Matrix: Soil

			Metals Analy	ses (Total)					
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Antimony	ND	2.2	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Arsenic	3.8	2.2	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Barium	46	2.2	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Beryllium	0.38	0.22	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Cadmium	ND	0.22	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Chromium	11	0.44	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Lead	83	0.66	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Mercury	0.091	0.033	mg/Kg dry	1		SW-846 7471B	11/26/19	11/26/19 18:57	AJL
Nickel	7.2	0.44	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Sclenium	ND	4.4	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 1:25	TBC
Silver	ND	0.44	mg/Kg dry	1		SW-846 6010D	11/26/19	12/3/19 1:25	TBC
Thallium	ND	2.2	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc
Vanadium	26	0.88	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 18:53	TBC
Zinc	45	0.88	mg/Kg dry	1		SW-846 6010D	11/26/19	11/27/19 19:33	tbc



Project Location: Beaver St., Waltham, MA

Sample Description:

Work Order: 19K1403

Jate Received: 11/22/2019

Field Sample #: HB-15

Sampled: 11/20/2019 13:00

Sample ID: 19K1403-10
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
% Solids		76.0		% Wt	1		SM 2540G	11/25/19	11/26/19 10:38	adb



Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19K1403-01 [HB-1]	B246947	11/25/19
19K1403-02 [HB-5]	B246947	11/25/19
19K1403-03 [HB-6]	B246947	11/25/19
19K1403-04 [HB-7]	B246947	11/25/19
19K1403-05 [HB-8]	B246947	11/25/19
19K1403-06 [HB-9]	B246947	11/25/19
19K1403-07 [HB-10]	B246947	11/25/19
19K1403-08 [HB-11]	B246947	11/25/19
19K1403-09 [HB-14]	B246947	11/25/19
19K1403-10 [HB-15]	B246947	11/25/19

Prep Method: SW-846 3050B-SW-846 6010D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date	
19K1403-01 [HB-1]	B247130	1.52	50.0	11/26/19	
19K1403-02 [HB-5]	B247130	1.51	50.0	11/26/19	
19K1403-03 [HB-6]	B247130	1.54	50.0	11/26/19	
19K1403-04 [HB-7]	B247130	1.52	50.0	11/26/19	
19K1403-05 [HB-8]	B247130	1.52	50.0	11/26/19	
19K1403-06 [HB-9]	B247130	1.54	50.0	11/26/19	
19K1403-07 [HB-10]	B247130	1.48	50.0	11/26/19	
19K1403-08 [HB-11]	B247130	1.51	50.0	11/26/19	
C1403-09 [HB-14]	B247130	1.50	50.0	11/26/19	
19K1403-10 [HB-15]	B247130	1.49	50.0	11/26/19	

Prep Method: SW-846 7471-SW-846 7471B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date	
19K1403-01 [HB-1]	B247073	0.625	50.0	11/26/19	
19K1403-02 [HB-5]	B247073	0.606	50.0	11/26/19	
19K1403-03 [HB-6]	B247073	0.622	50.0	11/26/19	
19K1403-04 [HB-7]	B247073	0.612	50.0	11/26/19	
19K1403-05 [HB-8]	B247073	0.579	50.0	11/26/19	
19K1403-06 [HB-9]	B247073	0.600	50.0	11/26/19	
19K1403-07 [HB-10]	B247073	0.610	50.0	11/26/19	
19K1403-08 [HB-11]	B247073	0.639	50.0	11/26/19	
19K1403-09 [HB-14]	B247073	0.607	50.0	11/26/19	
19K1403-10 [HB-15]	B247073	0.607	50.0	11/26/19	

Prep Method: SW-846 3546-SW-846 8270D-E

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date	
19K1403-01 [HB-1]	B246869	30.0	1.00	11/24/19	
19K1403-02 [HB-5]	B246869	30.1	1.00	11/24/19	
19K1403-03 [HB-6]	B246869	30.6	1.00	11/24/19	
19K1403-04 [HB-7]	B246869	30.1	1.00	11/24/19	
19K1403-05 [HB-8]	B246869	30.6	1.00	11/24/19	
K1403-06 [HB-9]	B246869	30.3	1.00	11/24/19	
_1403-07 [HB-10]	B246869	30.7	1.00	11/24/19	
19K1403-08 [HB-11]	B246869	30.2	1.00	11/24/19	
19K1403-09 [HB-14]	B246869	30.4	1.00	11/24/19	



Sample Extraction Data

Prep Method: SW-846 3546-SW-846 8270D-E

Lab Number (Field ID)	Batch	Initial [g]	Final [mL]	Date
19K1403-10 [HB-15]	B246869	30.3	1.00	11/24/19



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246869 - SW-846 3546										
Blank (B246869-BLK1)				Prepared: 11	1/24/19 Analy	/zcd: 11/27/1	9			
Acenaphthene	. ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-04, V-05, V-35
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							L-04
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
-Chloroaniline	ND	0.66	mg/Kg wet							V-34
Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chiorophenol	ND	0.34	mg/Kg wet							
l-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
,3-Dichlorobenzene	ND	0,34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0,34	mg/Kg wet							
,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
,4-Dinitrophenol	ND	0.66	mg/Kg wet							
,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
luoranthene	ND	0.17	mg/Kg wet							
luorene	ND	0.17	mg/Kg wet							
lexachlorobenzene	ND	0.34	mg/Kg wet							
lexachlorobutadiene	ND	0.34	mg/Kg wet							
Iexachlorocyclopentadiene	ND	0.34	mg/Kg wet							V-05
lexachloroethane	ND	0.34	mg/Kg wet							
¹eno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
ophorone	ND	0.34	mg/Kg wet							
-Methylnaphthalene	ND	0.17	mg/Kg wet							
-Methylnaphthalene	ND	0.17	mg/Kg wet							



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246869 - SW-846 3546	1.00.001							· · · · · · · · · · · · · · · · · · ·		
Blank (B246869-BLK1)				Prepared: 11	/24/19 Analy	yzed: 11/27/1	9			
2-Methylphenol	ND	0.34	mg/Kg wet					***************************************		
3/4-Methylphenol	ND	0.34	mg/Kg wet							
Vaphthalene	ND	0.17	mg/Kg wet							
!-Nitroaniline	ND	0.34	mg/Kg wet							
-Nitroaniline	ND	0.34	mg/Kg wet							
-Nitroaniline	ND	0.34	mg/Kg wet							
Vitrobenzene	ND	0.34	mg/Kg wet							
-Nitrophenol	ND	0.34	mg/Kg wet							
-Nitrophenol	ND	0.66	mg/Kg wet							
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet							
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet							
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet							
Pentachloronitrobenzene	ND	0.34	mg/Kg wet							
entachiorophenol	ND	0.34	mg/Kg wet							V-05
Phenanthrene	ND	0.17	mg/Kg wet							
Phenol	ND	0.34	mg/Kg wet							
Рутепе	ND	0.17	mg/Kg wct							
Pyridine	ND	0.34	mg/Kg wet							
,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet							
2,4-Trichlorobenzene	ND	0.34	mg/Kg wet							
,5-Trichlorophenol	ND	0.34	mg/Kg wet							
4,4,6-Trichlorophenol	ND	0.34	mg/Kg wet							
Surrogate: 2-Fluorophenol	5.51		mg/Kg wet	6.67		82.7	30-130			
Surrogate: Phenol-d6	5.60		mg/Kg wet	6.67		84.1	30-130			
Surrogate: Nitrobenzene-d5	2.58		mg/Kg wet	3.33		77.5	30-130			
Surrogate: 2-Fluorobiphenyl	2.76		mg/Kg wet	3.33		82.9	30-130			
Surrogate: 2,4,6-Tribromophenol	5.84		mg/Kg wet	6.67		87.5	30-130			
Surrogate: p-Terphenyl-d14	3.14		mg/Kg wet	3.33		94.3	30-130			
.CS (B246869-BS1)				-	/24/19 Analy					
Acenaphthene	1.09	0.17	mg/Kg wet	1.67		65.7	40-140			
Acenaphthylene	1.17	0.17	mg/Kg wet	1.67		70.0	40-140			
Acetophenone	1.11	0.34	mg/Kg wet	1.67		66.6	40-140			
Aniline	0.809	0.34	mg/Kg wet	1.67		48.5	10-140			
Anthracenc	1.25	0.17	mg/Kg wet	1.67		75.0	40-140			V-04, V-05, V-3
Renzidine	1.85	0.66	mg/Kg wet	1.67		111	40-140 40-140			+***** Y***** Y**3
Benzo(a)anthracene	1.20	0.17	mg/Kg wet	1.67		72.2				
Benzo(a)pyrene	1.17	0.17	mg/Kg wet	1.67		70.2	40-140 40-140			
Benzo(b)fluoranthene	1.18	0.17 0.17	mg/Kg wet mg/Kg wet	1.67		71.0 68.8	40-140			
denzo(g,h,i)perylene	1.15	0.17	mg/Kg wet	1.67 1.67		72.3	40-140			
Benzo(k)fluoranthene Benzoic Acid	1.21	1.0	mg/Kg wet	1.67		10.7 *	30-130			L-04
is (2-chloroethoxy) methane	0.179 1.11	0.34	mg/Kg wet	1.67		66.6	40-140			
his(2-chloroethyl)ether		0.34	mg/Kg wet	1.67		62.4	40-140			
sis(2-chloroisopropyl)ether	1.04	0.34	mg/Kg wet	1.67		67.6	40-140			
is(2-Ethylhexyl)phthalate	1.13	0.34	mg/Kg wet	1.67		74.2	40-140			
-Bromophenylphenylether	1.24	0.34	mg/Kg wet	1.67		70.3	40-140			
Sutylbenzylphthalate	1.17	0.34	mg/Kg wet	1.67		73.6	40-140			
outyroettzyrpittiatate	1.23 1.20	0.17	mg/Kg wet	1.67		73.6	40-140			
rhorala		0.17	me tre wer	1.07		, 4.3	-10-1-10			
-bazole		0.66	mg/K a wet	1 67		53.6	10_140			V-34
-bazole -Chloroaniline -Chloro-3-methylphenol	0.893 1.23	0.66 0.66	mg/Kg wet mg/Kg wet	1.67 1.67		53.6 73.7	10-140 30-130			V-34



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246869 - SW-846 3546										
LCS (B246869-BS1)		'		Prepared: 11	/24/19 Analy	zed: 11/27/1	9			
2-Chlorophenol	1.11	0.34	mg/Kg wet	1.67	······································	66.4	30-130			
4-Chlorophenylphenylether	1.16	0.34	mg/Kg wet	1.67		69.4	40-140			
Chrysene	1.19	0.17	mg/Kg wet	1.67		71.2	40-140			
Dibenz(a,h)anthracene	1.14	0.17	mg/Kg wet	1.67		68.5	40-140			
Dibenzofuran	1.20	0.34	mg/Kg wet	1.67		71.8	40-140			
Di-n-butylphthalate	1.24	0.34	mg/Kg wet	1.67		74.2	40-140			
1,2-Dichlorobenzene	1.02	0.34	mg/Kg wet	1.67		61.1	40-140			
1,3-Dichlorobenzene	0.991	0.34	mg/Kg wet	1.67		59.5	40-140			
1,4-Dichlorobenzene	0.995	0.34	mg/Kg wet	1.67		59.7	40-140			
3,3-Dichlorobenzidine	0.946	0.17	mg/Kg wet	1.67		56.8	20-140			
2,4-Dichlorophenol	1.13	0.34	mg/Kg wet	1.67		67.6	30-130			
Diethylphthalate	1.16	0.34	mg/Kg wet	1.67		69.8	40-140			
2,4-Dimethylphenol	1.01	0.34	mg/Kg wet	1.67		60.8	30-130			
Dimethylphthalate	1.16	0.34	mg/Kg wet	1.67		69.7	40-140			
4,6-Dinitro-2-methylphenol	1.09	0.34	mg/Kg wet	1.67		65.5	30-130			
2,4-Dinitrophenol	0.601	0.66	mg/Kg wet	1.67		36.1	30-130			
2,4-Dinitrotoluene	1.30	0.34	mg/Kg wet	1.67		78.1	40-140			
2,6-Dinitrotoluene	1.32	0.34	mg/Kg wet	1.67		79.4	40-140			
Di-n-octylphthalate	1.29	0.34	mg/Kg wet	1.67		77.4	40-140			
1.2-Diphenylhydrazine/Azobenzene	1.24	0.34	mg/Kg wet	1.67		74.1	40-140			
oranthene	1.25	0.17	mg/Kg wet	1.67		75.0	40-140			
luorene	1.20	0.17	mg/Kg wet	1.67		71.8	40-140			
dexachlorobenzene	1.25	0.34	mg/Kg wet	1.67		75.1	40-140			
Hexachlorobutadiene	0.990	0.34	mg/Kg wet	1.67		59.4	40-140			
Hexachlorocyclopentadiene	0.692	0.34	mg/Kg wet	1.67		41.5	40-140			V-05
Hexachloroethane	1.01	0.34	mg/Kg wet	1.67		60.7	40-140			
indeno(1,2,3-cd)pyrene	1.24	0.17	mg/Kg wet	1.67		74.6	40-140			
Sophorone	1.16	0.34	mg/Kg wet	1.67		69.8	40-140			
1-Methylnaphthalene	1.01	0.17	mg/Kg wet	1.67		60.5	40-140			
2-Methylnaphthalene 2-Methylphenol	1.21	0.17 0.34	mg/Kg wet mg/Kg wet	1.67		72.5 64.9	40-140 30-130			
z-Metnyiphenoi 3/4-Methylphenol	1.08	0.34	mg/Kg wet	1.67 1.67		69.1	30-130 30-130			
Naphthalene	1.15	0.17	mg/Kg wet	1.67		65.3	40-140			
2-Nitroaniline	1.09	0.17	mg/Kg wet	1.67		77.8	40-140			
3-Nitroaniline	1.30 1.21	0.34	mg/Kg wet	1.67		72.7	30-140			
4-Nitroaniline	1.33	0.34	mg/Kg wet	1.67		79.6	40-140			
Nitrobenzene	1,13	0.34	mg/Kg wet	1.67		67.6	40-140			
2-Nitrophenol	1.26	0.34	mg/Kg wet	1.67		75.9	30-130			
4-Nitrophenol	1,39	0.66	mg/Kg wet	1.67		83.4	30-130			
V-Nitrosodimethylamine	0.944	0.34	mg/Kg wet	1.67		56.7	40-140			
I-Nitrosodiphenylamine/Diphenylamine	1.27	0.34	mg/Kg wet	1.67		76.2	40-140			
N-Nitrosodi-n-propylamine	1.11	0.34	mg/Kg wet	1.67		66.8	40-140			
entachloronitrobenzene	1.29	0.34	mg/Kg wet	1.67		77.2	40-140			
entachlorophenol	0.791	0.34	mg/Kg wet	1.67		47.4	30-130			V-05
henanthrene	1.24	0.17	mg/Kg wet	1.67		74.4	40-140			
henol	1.22	0.34	mg/Kg wet	1.67		73.1	30-130			
yrene	1.21	0.17	mg/Kg wet	1.67		72.7	40-140			
yridine	0.632	0.34	mg/Kg wet	1.67		37.9	30-140			
4,5-Tetrachlorobenzene	1.04	0.34	mg/Kg wet	1.67		62.5	40-140			
,2,4-Trichlorobenzene	1.03	0.34	mg/Kg wet	1.67		61.9	40-140			
,4,5-Trichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.6	30-130			
,4,6-Trichlorophenol	1.17	0.34	mg/Kg wet	1.67		70.3	30-130			



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B246869 - SW-846 3546											
LCS (B246869-BS1)				Prepared: 11	/24/19 Anal	yzed: 11/27/1	9				_
Surrogate: 2-Fluorophenol	4.87		mg/Kg wet	6.67	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	73.1	30-130				_
Surrogate: Phenol-d6	5.00		mg/Kg wet	6.67		75.1	30-130				
Surrogate: Nitrobenzene-d5	2.33		mg/Kg wet	3.33		69.9	30-130				
Surrogate: 2-Fluorobiphenyl	2.47		mg/Kg wet	3.33		74.0	30-130				
Surrogate: 2,4,6-Tribromophenol	6.16		mg/Kg wet	6.67		92.4	30-130				
Surrogate: p-Terphenyl-d14	2.80		mg/Kg wet	3.33		83.9	30-130				
LCS Dup (B246869-BSD1)				Prepared: 11	/24/19 Anai	yzed: 11/27/1	9				
Acenaphthene	1.14	0.17	mg/Kg wet	1.67		68.5	40-140	4.26	30		
Accnaphthylene	1.19	0.17	mg/Kg wet	1.67		71.6	40-140	2.26	30		
Acetophenone	1.22	0.34	mg/Kg wet	1.67		73.4	40-140	9.71	30		
Aniline	0.956	0.34	mg/Kg wet	1.67		57.4	10-140	16.7	50		†
Anthracene	1.29	0.17	mg/Kg wet	1.67		77.3	40-140	2.97	30	****	
Benzidine	1.92	0.66	mg/Kg wet	1.67		115	40-140	4.03	30	V-04, V-05, V-35	
Benzo(a)anthracene	1.24	0.17	mg/Kg wet	1.67		74.3	40-140	2.87	30		
Benzo(a)pyrene	1.21	0.17	mg/Kg wet	1.67		72.6	40-140	3.33	30		
Benzo(b)fluoranthene	1.29	0.17	mg/Kg wet	1.67		77.4	40-140	8.54	30		
Benzo(g,h,i)perylene	1.33	0.17	mg/Kg wet	1.67		79.8	40-140	14.7	30		
Benzo(k)fluoranthene	1.30	0.17	mg/Kg wet	1.67		78.1	40-140	7.69	30		
Benzoic Acid	0.168	1.0	mg/Kg wet	1.67		10.1 *	30-130	6.35	50	L-04	
(2-chloroethoxy)methane	1.20	0.34	mg/Kg wet	1.67		72.3	40-140	8.27	30		
s(2-chloroethyl)ether	1.16	0.34	mg/Kg wet	1.67		69.7	40-140	11.2	30		
Bis(2-chloroisopropyl)ether	1.26	0.34	mg/Kg wet	1.67		75.4	40-140	10.9	30		
Bis(2-Ethylhexyl)phthalate	1.25	0.34	mg/Kg wet	1.67		75.2	40-140	1.34	30		
4-Bromophenylphenylether	1.26	0.34	mg/Kg wet	1.67		75.7	40-140	7.37	30		
Butylbenzylphthalate	1.26	0.34	mg/Kg wet	1.67		75.8	40-140	2.86	30		
Carbazole	1.22	0.17	mg/Kg wet	1.67		73.4	40-140	1.59	30		
4-Chloroaniline	0.976	0.66	mg/Kg wet	1.67		58.5	10-140	8.81	30	V-34	†
4-Chloro-3-methylphenol	1.17	0.66	mg/Kg wet	1.67		70.1	30-130	5.01	30		
2-Chloronaphthalene	1.07	0.34	mg/Kg wet	1.67		64.0	40-140	7.79	30		
2-Chlorophenoi	1.23	0.34	mg/Kg wet	1.67		73.6	30-130	10.3	30		
4-Chlorophenylphenylether	1.16	0.34	mg/Kg wet	1.67		69.5	40-140	0.0576	30		
Chrysene	1.21	0.17	mg/Kg wet	1.67		72.7	40-140	2.08	30		
Dibenz(a,h)anthracene	1.24	0.17	mg/Kg wet	1.67		74.6	40-140	8.55	30		
Dibenzofuran	1.21	0.34	mg/Kg wet	1.67		72.3	40-140	0.777	30		
Di-n-butylphthalate	1.26	0.34	mg/Kg wet	1.67		75.8	40-140	2.13	30		
1,2-Dichlorobenzene	1.14	0.34	mg/Kg wet	1.67		68.3	40-140	11.1	30		
1,3-Dichlorobenzene	1.10	0.34	mg/Kg wet	1.67		66.0	40-140	10.4	30		
1,4-Dichlorobenzene	1.11	0.34	mg/Kg wet	1.67		66.5	40-140	10.8	30		
3,3-Dichlorobenzidine	1.07	0.17	mg/Kg wet	1.67		64.1	20-140	12.1	50		†
2,4-Dichlorophenol	1.17	0.34	mg/Kg wet	1.67		70.3	30-130	3.92	30		
Diethylphthalate	1.15	0.34	mg/Kg wet	1.67		68.8	40-140	1.36	30		
2,4-Dimethylphenol	1.07	0.34	mg/Kg wet	1.67		63.9	30-130	4.94	30		
Dimethylphthalate	1.19	0.34	mg/Kg wet	1.67		71.4	40-140	2.47	30		
4,6-Dinitro-2-methylphenol	1.09	0.34	mg/Kg wet	1.67		65.5	30-130	0.0916	30		
2,4-Dinitrophenol	0.557	0.66	mg/Kg wet	1.67		33.4	30-130	7.71	30		
2,4-Dinitrotoluene	1.25	0.34	mg/Kg wet	1.67		74.8	40-140	4.34	30		
2,6-Dinitrotoluene	1.33	0.34	mg/Kg wet	1.67		79.9	40-140	0.653	30		
-n-octylphthalate	1.54	0.34	mg/Kg wet	1.67		92.4	40-140	17.6	30		
-Diphenylhydrazine/Azobenzene	1.35	0.34	mg/Kg wet	1.67		80.8	40-140	8.63	30		
Fluoranthene	1.27	0.17	mg/Kg wet	1.67		76.4	40-140	1.85	30		
Fluorene	1.17	0.17	mg/Kg wet	1.67		70.4	40-140	1.91	30		



S Dup (B246869-18SD1) S Dup (B24689-18SD1) S	Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Supplicitable Supplicitab		Kesun	Dillik	Omis	Devel	resuit	AIREC	Dillius	IG D	Diffit	140103	J
acelione/bearance					Prenared: 11	/24/19 Analy	zed: 11/27/1	9		-		_
suchionoloutidiaries of 1,13	dexachlorobenzene	131	0.34	mg/Kg wet	<u>-</u>				4.86	30		
1.00 1.00				-								
Section 1,11 0,14 mg/Kg wrt 1,67 0,64 4,014 0,16 0,06 0,00	dexachlorocyclopentadiene										V-05	
1,57 0,17 mg/Kg wt	lexachloroethane										. 00	
1,000 1,00												
Indephasphathalene 1.05	sophorone											
Sealy Seal	·											
Individuation												
Methylphenol 1.21	-Methylphenol											
hishalene 1.19 0.17 mg/kg wet 1.67 71.4 40.140 8.92 30 10 10 10 10 10 10 10	/4-Methylphenol											
Introduction 1.28	Naphthalene											
Intendiffice 1.20	P-Nitroaniline											
ilireaniline 1.23 0.34 mg/Kg wtt 1.67 74.1 40.140 7.19 30 benezene 1.24 0.34 mg/Kg wtt 1.67 74.1 40.140 7.19 30 introphenol 1.39 0.34 mg/Kg wtt 1.67 74.1 40.140 9.71 30 30 introphenol 1.26 0.66 mg/Kg wtt 1.67 75.8 30.30 9.75 30 introphenol 1.26 0.66 mg/Kg wtt 1.67 75.8 30.30 9.75 30 introphenol 1.26 0.66 mg/Kg wtt 1.67 75.8 30.30 9.75 30 introphenol 1.26 0.66 mg/Kg wtt 1.67 75.8 30.30 9.75 30 introphenol 1.26 0.66 mg/Kg wtt 1.67 75.8 30.30 9.75 30 introphenol 1.26 0.34 mg/Kg wtt 1.67 75.8 30 30.100 9.75 30 introphenol 1.26 0.34 mg/Kg wtt 1.67 75.2 40.140 9.71 30 introphenol 1.21 0.34 mg/Kg wtt 1.67 75.1 40.140 1.16 30 introphenol 0.70 0.34 mg/Kg wtt 1.67 75.1 40.140 1.16 30 introphenol 0.70 0.34 mg/Kg wtt 1.67 75.1 40.140 1.16 30 introphenol 0.70 0.34 mg/Kg wtt 1.67 75.1 40.140 1.16 30 introphenol 0.70 0.34 mg/Kg wtt 1.67 75.1 40.140 1.16 30 introphenol 0.70 mg/Kg wtt 1.67 75.1 40.140 1.16 30 introphenol 0.70 mg/Kg wtt 1.67 75.1 40.140 1.16 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.16 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 2.39 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 2.39 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 2.39 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 2.39 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 2.39 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 2.39 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.14 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.15 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.15 30 introphenol 0.70 mg/Kg wtt 1.67 75.2 40.140 1.15 30 introphenol 0.70 m	3-Nitroaniline											†
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Introphenol 1,39	Vitrobenzene											
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ogate: Phenol-d6 5.28 mg/Kg wet 6.67 79.3 30-130 ogate: Nitrobenzene-d5 2.52 mg/Kg wet 3.33 75.7 30-130 ogate: 2,4,6-Tribromophenol 5.69 mg/Kg wet 6.67 85.4 30-130 ogate: 2,4,6-Tribromophenol 5.69 mg/Kg wet 6.67 85.4 30-130 oracte: p-rephenyl-d14 2.84 mg/Kg wet 3.33 85.1 30-130 rix Spike (B246869-MS1) Source: 19K1403-02 Prepared: 11/24/19 Analyzed: 11/27/19 naphthene 1.33 0.21 mg/Kg dry 2.08 ND 64.0 40-140 naphthylene 1.40 0.21 mg/Kg dry 2.08 ND 67.4 40-140 opate: q-rephenol-d14 0.971 0.42 mg/Kg dry 2.08 ND 67.4 40-140 opate: p-rephenol-d66 0.971 0.42 mg/Kg dry 2.08 ND 68.0 40-140 opate: p-rephenol-d64 0.137 0.82 mg/Kg dry 2.08<	,4,6-Trichlorophenol											
Segate: Phenol-d6 S.28 mg/Kg wet 6.67 79.3 30-130	Surrogate: 2-Fluorophenol	5.38		mg/Kg wet	6.67		80.7	30-130				
Source: 19K109 Sour	urrogate: Phenol-d6				6.67		79.3	30-130				
	urrogate: Nitrobenzene-d5	2.52			3.33		75.7	30-130				
Source: 19K1403-02 Prepared: 11/24/19 Analyzed: 11/27/19 Analyze	urrogate: 2-Fluorobiphenyl	2.68			3.33		80.6	30-130				
Source: 19K1403-02 Prepared: 11/24/19 Analyzed: 11/27/19	urrogate: 2,4,6-Tribromophenol	5.69		mg/Kg wet	6.67		85.4	30-130				
1.33 0.21 mg/Kg dry 2.08 ND 64.0 40-140	urrogate: p-Terphenyl-d14	2.84		mg/Kg wet	3.33		85.1	30-130				
naplithylene 1.40 0.21 mg/Kg dry 2.08 ND 67.4 40-140 topiconce 1.46 0.42 mg/Kg dry 2.08 ND 70.2 40-140 topiconce 1.46 0.42 mg/Kg dry 2.08 ND 70.2 40-140 topiconce 1.43 0.21 mg/Kg dry 2.08 ND 46.8 40-140 topiconce 1.43 0.21 mg/Kg dry 2.08 ND 68.8 40-140 topiconce 1.43 0.21 mg/Kg dry 2.08 ND 6.58 * 40-140 topiconce 1.41 0.21 mg/Kg dry 2.08 ND 67.7 40-140 topiconce 1.30 0.21 mg/Kg dry 2.08 ND 67.7 40-140 topiconce 1.36 0.21 mg/Kg dry 2.08 ND 65.4 40-140 topiconce 1.37 0.21 mg/Kg dry 2.08 ND 65.4 40-140 topiconce 1.37 0.21 mg/Kg dry 2.08 ND 66.1 40-140 topiconce 1.37 0.21 mg/Kg dry 2.08 ND 66.1 40-140 topiconce 1.39 0.21 mg/Kg dry 2.08 ND 66.7 40-140 topiconce 1.39 0.21 mg/Kg dry 2.08 ND 66.7 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 66.7 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.2 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.39 0.348 1.39 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.39 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.39 0.348 1.39 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.39 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.39 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.39 mg/Kg dry 2.08 ND 67.1 40-140 topiconce 1.39 0.348 1.39 mg/Kg dry 2.08 ND 67.1	Iatrix Spike (B246869-MS1)	Sour	ce: 19K1403	-02	Prepared: 11	/24/19 Analy:	zed: 11/27/1	9				
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1.46	cenaphthylene	1.40	0.21	mg/Kg dry	2.08	ND	67.4	40-140				
ine 0,971 0.42 mg/Kg dry 2.08 ND 46.8 40-140 mracene 1.43 0.21 mg/Kg dry 2.08 ND 68.8 40-140 mracene 20(a)anthracene 1.41 0.21 mg/Kg dry 2.08 ND 6.58 * 40-140 mracene 20(a)pyrene 1.30 0.21 mg/Kg dry 2.08 ND 65.4 40-140 mracene 20(g,h,i)perylene 1.37 0.21 mg/Kg dry 2.08 ND 65.4 40-140 mg/Kg dry 2.08 ND 66.7 40-140 mg/Kg dry 2.08 ND 67.1 40-140 mg/Kg dry 2.08 ND 67.	cetophenone		0.42	mg/Kg dry	2.08	ND	70.2	40-140				
1.43 0.21 mg/Kg dry 2.08 ND 68.8 40-140 2.08 ND 6.58 * 40-140 2.08 ND 6.58 * 40-140 2.09	miline	0.971	0.42	mg/Kg dry	2.08	ND	46.8	40-140				
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20(a)anthracene 1.41 0.21 mg/Kg dry 2.08 ND 67.7 40-140 20(a)pyrene 1.30 0.21 mg/Kg dry 2.08 ND 62.7 40-140 20(b)fluoranthene 1.36 0.21 mg/Kg dry 2.08 ND 65.4 40-140 20(g,h,i)perylene 1.37 0.21 mg/Kg dry 2.08 ND 66.1 40-140 20(k)fluoranthene 1.39 0.21 mg/Kg dry 2.08 ND 66.7 40-140 20(k)fluoranthene 1.39 0.21 mg/Kg dry 2.08 ND 66.7 40-140 20(k)fluoranthene 1.39 0.42 mg/Kg dry 2.08 ND 67.1 40-140 20-chloroethoxy)methane 1.39 0.42 mg/Kg dry 2.08 ND 67.1 40-140 20-chloroethyl)ether 1.41 0.42 mg/Kg dry 2.08 ND 67.9 40-140	enzidine	0.137	0.82	mg/Kg dry	2.08	ND	6.58 *	40-140				
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20(g,h,i)perylene 1.37 0.21 mg/Kg dry 2.08 ND 66.1 40-140 20(k)fluoranthene 1.39 0.21 mg/Kg dry 2.08 ND 66.7 40-140 20(k)fluoranthene 0.348 1.2 mg/Kg dry 2.08 ND 16.8 * 40-140 MS-09 2-chloroethoxy)methane 1.39 0.42 mg/Kg dry 2.08 ND 67.1 40-140 2-chloroethyl)ether 1.41 0.42 mg/Kg dry 2.08 ND 67.9 40-140	enzo(a)pyrene	1.30	0.21	mg/Kg dry	2.08	ND	62.7	40-140				
20(k)fluoranthene 1.39 0.21 mg/Kg dry 2.08 ND 66.7 40-140 20:04 Acid 0.348 1.2 mg/Kg dry 2.08 ND 16.8 * 40-140 MS-09 2-chloroethoxy)methane 1.39 0.42 mg/Kg dry 2.08 ND 67.1 40-140 2-chloroethyl)ether 1.41 0.42 mg/Kg dry 2.08 ND 67.9 40-140	enzo(b)fluoranthene	1.36	0.21	mg/Kg dry	2.08	ND	65.4	40-140				
20(k)fluoranthene 1.39 0.21 mg/Kg dry 2.08 ND 66.7 40-140 2010 Acid 0.348 1.2 mg/Kg dry 2.08 ND 16.8 * 40-140 MS-09 20-chloroethoxy)methane 1.39 0.42 mg/Kg dry 2.08 ND 67.1 40-140 20-chloroethyl)ether 1.41 0.42 mg/Kg dry 2.08 ND 67.9 40-140	enzo(g,h,i)perylene		0.21	mg/Kg dry	2.08	ND	66.1	40-140				
zoic Acid 0.348 1.2 mg/Kg dry 2.08 ND 16.8 * 40-140 MS-09 2-chloroethoxy)methane 1.39 0.42 mg/Kg dry 2.08 ND 67.1 40-140 2-chloroethyl)ether 1.41 0.42 mg/Kg dry 2.08 ND 67.9 40-140	vzo(k)fluoranthene		0.21	mg/Kg dry	2.08	ND	66.7	40-140				
2-chloroethoxy)methane 1.39 0.42 mg/Kg dry 2.08 ND 67.1 40-140 2-chloroethyl)ether 1.41 0.42 mg/Kg dry 2.08 ND 67.9 40-140	nzoic Acid		1.2	mg/Kg dry	2.08	ND	16.8 *	40-140			MS-09	
2-chloroethyl)ether 1.41 0.42 mg/Kg dry 2.08 ND 67.9 40-140	is(2-chloroethoxy)methane		0.42	mg/Kg dry	2.08		67.1	40-140				
	s(2-chloroethyl)ether											
	•	2.76	_			* 1.23				F	Page 53 of	



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B246869 - SW-846 3546										
Matrix Spike (B246869-MS1)	Sour	rce: 19K1403		Prepared: 11	1/24/19 Analy2	red: 11/27/				
Bis(2-chloroisopropyl)ether	1.49	0.42	mg/Kg dry	2.08	ND	71.7	40-140			
Bis(2-Ethylhexyl)phthalate	1.62	0.42	mg/Kg dry	2.08	0.357	60.8	40-140			
4-Bromophenylphenylether	1.40	0.42	mg/Kg dry	2.08	ND	67.2	40-140			
Butylbenzylphthalate	1.47	0.42	mg/Kg dry	2.08	0.283	57.4	40-140			
Carbazole	1.38	0.21	mg/Kg dry	2.08	ND	66.6	40-140			
4-Chloroaniline	0.985	0.82	mg/Kg dry	2.08	ND	47.5	40-140			V-34
4-Chloro-3-methylphenol	1.39	0.82	mg/Kg dry	2.08	ND	66.9	30-130			
2-Chloronaphthalene	1.24	0.42	mg/Kg dry	2.08	ND	59.7	40-140			
2-Chlorophenol	1.43	0.42	mg/Kg dry	2.08	ND	68.7	30-130			
4-Chlorophenylphenylether	1.35	0.42	mg/Kg dry	2.08	ND	65.1	40-140			
Chrysene Diboards bloodbases	1.38	0.21	mg/Kg dry	2.08	ND	66.6	40-140			
Dibenz(a,h)anthracene	1.32	0.21	mg/Kg dry	2.08	ND	63.8	40-140			
Dibenzofuran	1.40	0.42	mg/Kg dry	2.08	ND	67.7	40-140			
Di-n-butylphthalate	1.43	0.42	mg/Kg dry	2.08	ND	68.7	40-140			
1,2-Dichlorobenzene	1.35	0.42	mg/Kg dry	2.08	ND	65.2	40-140			
1,3-Dichlorobenzene	1.31	0.42	mg/Kg dry	2.08	ND	63.2	40-140			
1,4-Dichlorobenzene	1.33	0.42	mg/Kg dry	2.08	ND	64.2	40-140			
3,3-Dichlorobenzidine	0.956	0.21	mg/Kg dry	2.08	ND	46.0	40-140 ′			
2,4-Dichlorophenol	1.25	0.42	mg/Kg dry	2.08	ND	60.0	30-130			
Diethylphthalate	1.32	0.42	mg/Kg dry	2.08	ND	63.6	40-140			
-Dimethylphenol	1.10	0.42	mg/Kg dry	2.08	ND	52.9	30-130			
methylphthalate	1.38	0.42	mg/Kg dry	2.08	ND	66.4	40-140			
4,6-Dinitro-2-methylphenol	1.44	0.42	mg/Kg dry	2.08	ND	69.4	30-130			
2,4-Dinitrophenol	1.12	0.82	mg/Kg dry	2.08	ND	53.8	30-130			
2,4-Dinitrotoluene	1.45	0.42	mg/Kg dry	2.08	ND	69.8	40-140			
2,6-Dinitrotoluene	1.56	0.42	mg/Kg dry	2.08	ND	75.2	40-140			
Di-n-octylphthalate	1.63	0.42	mg/Kg dry	2.08	ND	78.3	40-140			
1,2-Diphenylhydrazine/Azobenzene	1.49	0.42	mg/Kg dry	2.08	ND	71.8	40-140			
Fluoranthene	1.50	0.21	mg/Kg dry	2.08	0.154	64.6	40-140			
Fluorene	1.38	0.21	mg/Kg dry	2.08	ND	66.2	40-140			
Hexachlorobenzene	1.46	0.42	mg/Kg dry	2.08	ND	70.1	40-140			
Hexachlorobutadiene	1.29	0.42	mg/Kg dry	2.08	ND	62.2	40-140			****
Hexachlorocyclopentadiene	0.821	0.42	mg/Kg dry	2.08	ND	39.6	30-130			V-05
Hexachloroethane	1.32	0.42	mg/Kg dry	2.08	ND	63.4	40-140			
Indeno(1,2,3-cd)pyrene	1.45	0.21	mg/Kg dry	2.08	ND	69.6	40-140			
Isophorone	1.46	0.42	mg/Kg dry	2.08	ND	70.2	40-140			
1-Methylnaphthalene	1.24	0.21	mg/Kg dry	2.08	ND	59.9	40-140			
2-Methylnaphthalene	1.51	0.21	mg/Kg dry	2.08	ND	72.5	40-140			
2-Methylphenol	1.31	0.42	mg/Kg dry	2.08	ND	63.0	30-130			
3/4-Methylphenol	1.39	0.42	mg/Kg dry	2.08	ND	67.0	30-130			
Naphthalene	1,41	0.21	mg/Kg dry	2.08	ND	68.0	40-140			
2-Nitroaniline	1.49	0.42	mg/Kg dry	2.08	ND	71.8	40-140			
3-Nitroaniline	1.29	0.42	mg/Kg dry	2.08	ND	62.3	40-140			
4-Nitroaniline	1.33	0.42	mg/Kg dry	2.08	ND	63,8	40-140			
Nitrobenzene	1.46	0.42	mg/Kg dry	2.08	ND	70.3	40-140			
2-Nitrophenol	1.60	0.42	mg/Kg dry	2.08	ND	77.3	30-130			
-Nitrophenol	1.43	0.82	mg/Kg dry	2.08	ND	69.1	30-130			
N-Nitrosodimethylamine	1.24		mg/Kg dry	2.08	ND	59.7	40-140			
Vitrosodiphenylamine/Diphenylamine	1.48	0.42	mg/Kg dry	2.08	ND	71.2	40-140			
litrosodi-n-propylamine	1.45	0.42	mg/Kg dry	2.08	ND	70.0	40-140			
entachloronitrobenzene	1.49	0.42	mg/Kg dry	2.08	ND	71.5	40-140			
entachlorophenol	0.885	0.42	mg/Kg dry	2.08	ND	42.6	30-130			V-05



QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

A. Indo	Dla	Reporting	[laits	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result	Limit	Units	Level	Kesuit	70REC	Limits	KPD	Liiiit	Notes
Batch B246869 - SW-846 3546										
Matrix Spike (B246869-MS1)	Sou	rce: 19K1403			/24/19 Analy2					
Phenanthrene	1.46	0.21	mg/Kg dry	2.08	ND	70.4	40-140			
Phenoi	1.53	0.42	mg/Kg dry	2.08	ND	73.6	30-130			
Pyrene	1.53	0.21	mg/Kg dry	2.08	0.176	65.1	40-140			
Pyridine	0.782	0.42	mg/Kg dry	2.08	ND	37.7 *				MS-09
,2,4,5-Tetrachlorobenzene	1.37	0.42	mg/Kg dry	2.08	ND	65.8	40-140			
,2,4-Trichlorobenzene	1.34	0.42	mg/Kg dry	2.08	ND	64.6	40-140			
,4,5-Trichlorophenol	1.43	0.42	mg/Kg dry	2.08	ND	68.9	30-130			
,4,6-Trichlorophenol	1.38	0.42	mg/Kg dry	2.08	ND	66.3	30-130			
urrogate: 2-Fluorophenol	6.11		mg/Kg dry	8.30		73.6	30-130			
urrogate: Phenol-d6	6.26		mg/Kg dry	8.30		75.3	30-130			
urrogate: Nitrobenzene-d5	2.97		mg/Kg dry	4.15		71.4	30-130			
urrogate: 2-Fluorobiphenyl	3.09		mg/Kg dry	4.15		74.4	30-130			
urrogate: 2,4,6-Tribromophenol	6.31		mg/Kg dry	8.30		76.0	30-130			
urrogate: p-Terphenyl-d14	3.30		mg/Kg dry	4.15		79.4	30-130			
Tatrix Spike Dup (B246869-MSD1)	Sou	rce: 19K1403	3-02	Prepared: 11	/24/19 Analyz	ed: 11/27/	19			
cenaphthene	1.36	0.21	mg/Kg dry	2.08	ND	65.6	40-140	2.41	30	
cenaphthylene	1.44	0.21	mg/Kg dry	2.08	ND	69.3	40-140	2.72	30	
cetophenone	1.46	0.42	mg/Kg dry	2.08	ND	70.3	40-140	0.114	30	
niline	0.849	0.42	mg/Kg dry	2.08	ND	40.9	40-140	13.4	30	
hracene	1.48	0.21	mg/Kg dry	2.08	ND	71.2	40-140	3.40	30	
enzidine	0.0855	0.82	mg/Kg dry	2.08	ND	4.12 *	40-140		30	V-35, MS-09 V-04, V-05
enzo(a)anthracene	1.47	0.21	mg/Kg dry	2.08	ND	70.6	40-140	4.28	30	
enzo(a)pyrene	1.40	0.21	mg/Kg dry	2.08	ND	67.2	40-140	6.89	30	
enzo(b)fluoranthene	1.40	0.21	mg/Kg dry	2.08	ND	67.3	40-140	2.92	30	
enzo(g,h,i)perylene	1.55	0.21	mg/Kg dry	2.08	ND	74.8	40-140	12.3	30	
enzo(k)fluoranthene	1.39	0.21	mg/Kg dry	2.08	ND	67.1	40-140	0.538	30	
enzoic Acid	0.414	1.2	mg/Kg dry	2.08	ND	19.9 *	40-140		30	MS-09
is(2-chloroethoxy)methane	1.44	0.42	mg/Kg dry	2.08	ND	69.1	40-140	2.97	30	
is(2-chloroethyl)ether	1.41	0.42	mg/Kg dry	2.08	ND	67.8	40-140	0.265	30	
is(2-chloroisopropyl)ether	1.51	0.42	mg/Kg dry	2.08	ND	72.6	40-140	1.22	30	
is(2-Ethylhexyl)phthalate	1.74	0.42	mg/Kg dry	2.08	0.357	66.6	40-140	7.19	30	
-Bromophenylphenylether	1.40	0.42	mg/Kg dry	2.08	ND	67.7	40-140	0.623	30	
utylbenzylphthalate	1.54	0.42	mg/Kg dry	2.08	0.283	60.7	40-140	4.49	30	
arbazole	1.41	0.21	mg/Kg dry	2.08	ND	68.1	40-140	2.17	30	
-Chloroaniline	0.922	0.82	mg/Kg dry	2.08	ND	44.4	40-140	6.62	30	V-34
-Chloro-3-methylphenol	1.41	0.82	mg/Kg dry	2.08	ND	67.7	30-130	1.28	30	
-Chioronaphthalene	1.26	0.42	mg/Kg dry	2.08	ND	60.8	40-140	1.86	30	
-Chlorophenol	1.43	0.42	mg/Kg dry	2.08	ND	69.0	30-130	0.494	30	
-Chlorophenylphenylether	1.37	0.42	mg/Kg dry	2.08	ND	66.0	40-140	1.37	30	
hrysene	1.44	0.21	mg/Kg dry	2.08	ND	69.5	40-140	4.17	30	
bibenz(a,h)anthracene	1.42	0.21	mg/Kg dry	2.08	ND	68.4	40-140	7.05	30	
ibenzofuran	1.44	0.42	mg/Kg dry	2.08	ND	69.2	40-140	2.28	30	
i-n-butylphthalate	1.46	0.42	mg/Kg dry	2.08	ND	70.3	40-140	2.22	30	
2-Dichlorobenzene	1.36	0.42	mg/Kg dry	2.08	ND	65.6	40-140	0.520	30	
3-Dichlorobenzene	1.31	0.42	mg/Kg dry	2.08	ND	63.3	40-140	0.0633	30	
,4-Dichlorobenzene	1.33	0.42	mg/Kg dry	2.08	ND	63.9	40-140	0.437	30	
3-Dichlorobenzidine	0.882	0.21	mg/Kg dry	2.08	ND	42.5	40-140	8.09	30	
Dichlorophenol	1.28	0.42	mg/Kg dry	2.08	ND	61.5	30-130	2.40	30	
riethylphthalate	1.36	0.42	mg/Kg dry	2.08	ND	65.6	40-140	3.13	30	
4-Dimethylphenol	1.12	0.42	mg/Kg dry	2.08	ND	54.1	30-130	2.24	30	
imethylphthalate	1.39	0.42	mg/Kg dry	2.08	ND	67.2	40-140	1.23	30	

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QUALITY CONTROL

Apolyto	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Кезин	Limit	Ohits	LCVCI	Result	78REC	Linits	IGD	Linu	140103
Batch B246869 - SW-846 3546	-	10771 107		December 4, 11	/24/10 41	rod: 11/27/	0		·	
Matrix Spike Dup (B246869-MSD1)		ce: 19K1403			/24/19 Analy:			0.402	10	
4,6-Dinitro-2-methylphenol	1,45	0.42	mg/Kg dry	2.08	ND	69.7	30-130	0.402 0.334	30	
2,4-Dinitrophenol	1.12	0.82	mg/Kg dry	2.08	ND	53.9	30-130		30	
2,4-Dinitrotoluene	1.50	0.42	mg/Kg dry	2.08	ND	72.4	40-140	3.71	30 30	
2,6-Dinitrotoluene	1.62	0.42	mg/Kg dry	2.08	ND	77.8	40-140	3.45		
Di-n-octylphthalate	1.63	0.42	mg/Kg dry	2.08	ND	78.5	40-140	0.255	30 30	
,2-Diphenylhydrazine/Azobenzene	1.50	0.42	mg/Kg dry	2.08	ND	72.1	40-140	0.473		
luoranthene	1.57	0.21	mg/Kg dry	2.08	0.154	68.0	40-140	4.64	30	
luorene	1.42	0.21	mg/Kg dry	2.08	ND	68.2	40-140	2.89	30	
Hexachlorobenzene	1.46	0.42	mg/Kg dry	2.08	ND	70.4	40-140	0.370	30	
Hexachlorobutadiene	1.31	0.42	mg/Kg dry	2.08	ND	62.9	40-140	1.12	30	3/0-
Hexachlorocyclopentadiene	0.820	0.42	mg/Kg dry	2.08	ND	39.5	30-130	0.202	30	V-05
dexachloroethane	1.33	0.42	mg/Kg dry	2.08	ND	63.9	40-140	0.880	30	
ndeno(1,2,3-cd)pyrene	1.63	0.21	mg/Kg dry	2.08	ND	78.3	40-140	11.7	30	
sophorone	1.50	0.42	mg/Kg dry	2.08	ND	72.3	40-140	2.92	30	
-Methylnaphthalene	1.28	0.21	mg/Kg dry	2.08	ND	61.6	40-140	2.76	30	
-Methylnaphthalene	1.55	0.21	mg/Kg dry	2.08	ND	74.7	40-140	2.88	30	
-Methylphenol	1.33	0.42	mg/Kg dry	2.08	ND	64.1	30-130	1.67	30	
/4-Methylphenol	1.40	0.42	mg/Kg dry	2.08	ND	67.5	30-130	0.654	30	
Vaphthalene	1.45	0.21	mg/Kg dry	2.08	ND	69.8	40-140	2.58	30	
-Nitroaniline	1.53	0.42	mg/Kg dry	2.08	ND	73.6	40-140	2.53	30	
itroaniline	1.30	0.42	mg/Kg dry	2.08	ND	62.8	40-140	0.831	30	
-Nitroaniline	1.36	0.42	mg/Kg dry	2.08	ND	65.6	40-140	2.75	30	
Vitrobenzene	1.49	0.42	mg/Kg dry	2.08	ND	71.6	40-140	1.89	30	
-Nitrophenol	1.65	0.42	mg/Kg dry	2.08	ND	79.5	30-130	2.78	30	
-Nitrophenol	1.50	0.82	mg/Kg dry	2.08	ND	72.3	30-130	4.53	30	
V-Nitrosodimethylamine	1.27	0.42	mg/Kg dry	2.08	ND	61.0	40-140	2.16	30	
N-Nitrosodiphenylamine/Diphenylamine	1.51	0.42	mg/Kg dry	2.08	ND	72.7	40-140	2.14	30	
N-Nitrosodi-n-propylamine	1.46	0.42	mg/Kg dry	2.08	ND	70.3	40-140	0.542	30	
Pentachloronitrobenzene	1.47	0.42	mg/Kg dry	2.08	ND	71.0	40-140	0.730	30	
Pentachlorophenol	0.876	0.42	mg/Kg dry	2.08	ND	42.2	30-130	0.990	30	V-05
Phenanthrene	1.52	0.21	mg/Kg dry	2.08	ND	73.1	40-140	3.65	30	
Phenol	1.53	0.42	mg/Kg dry	2.08	ND	73.5	30-130	0.163	30	
yrene	1.65	0.21	mg/Kg dry	2.08	0.176	70.9	40-140	7.64	30	
Pyridine	0.778	0.42	mg/Kg dry	2.08	ND	37.5 *	40-140	0.532	30	MS-09
,2,4,5-Tetrachlorobenzene	1.38	0.42	mg/Kg dry	2.08	ND	66.5	40-140	1.15	30	
,2,4-Trichlorobenzene	1.37	0.42	mg/Kg dry	2.08	ND	65.9	40-140	1.93	30	
,4,5-Trichlorophenol	1.45	0.42	mg/Kg dry	2.08	ND	69.7	30-130	1.10	30	
,4,6-Trichlorophenol	1.39	0.42	mg/Kg dry	2.08	ND	67.0	30-130	0.930	30	
urrogate: 2-Fluorophenol	6.09		mg/Kg dry	8.30		73.3	30-130			
surrogate: Phenol-d6	6.22		mg/Kg dry	8.30		74.9	30-130			
urrogate: Nitrobenzene-d5	3.06		mg/Kg dry	4.15		73.8	30-130			
urrogate: 2-Fluorobiphenyl	3.13		mg/Kg dry	4.15		75.5	30-130			
urrogate: 2,4,6-Tribromophenol	6.47		mg/Kg dry	8.30		77.9	30-130			
urrogate: p-Terphenyl-d14	3.49		mg/Kg dry	4.15		84.0	30-130			



QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B247073 - SW-846 7471										
Blank (B247073-BLK1)				Prepared &	Analyzed: 11	/26/19				
Mercury	ND	0.025	mg/Kg wet							
LCS (B247073-BS1)				Prepared &	Analyzed: 11/	/26/19				
Mercury	2.36	0.38	mg/Kg wet	2.93		80.4	71.3-128.7			
LCS Dup (B247073-BSD1)				Prepared &	Analyzed: 11/	/26/19				
Mercury	2.70	0.38	mg/Kg wet	2.93		92.0	71.3-128.7	13.5	20	
3atch B247130 - SW-846 3050B										
Blank (B247130-BLK1)				Prepared: 11	/26/19 Analy	/zed: 11/27/	19			
Antimony	ND	1.7	mg/Kg wet	· ·	<u> </u>					
Arsenic	ND	1.7	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.17	mg/Kg wet							
Chromium	ND	0.33	mg/Kg wet							
.ead	ND	0.50	mg/Kg wet							
lickel	ND	0.33	mg/Kg wet							
elenium	ND	3.3	mg/Kg wet							
ilver	ND	0.33	mg/Kg wet							
'tallium	ND	1.7	mg/Kg wet							
ıadium	ND	0.67	mg/Kg wct							
line	ND	0.67	mg/Kg wet							
.CS (B247130-BS1)				Prepared: 11.	/26/19 Analy	zed: 11/27/	19			
Antimony	106	5.0	mg/Kg wet	147		72.0	6.3-208			
rsenic	129	5.0	mg/Kg wet	143		89.9	82.4-116.8			
arium	420	5.0	mg/Kg wct	415		101	81.7-118.5			
eryllium	181	0.50	mg/Kg wet	179		101	82.6-116.8			
admium	56.2	0.50	mg/Kg wet	56.2		100	82.2-117.5			
hromium	94.8	0.99	mg/Kg wet	101		93.8	82-118.2			
ead	117	1.5	mg/Kg wet	125		93.9	82.3-117.1			
Vickel	111	0.99	mg/Kg wet	108		103	82.6-117.4			
elenium	69.4	9.9	mg/Kg wet	77.9		89.1	79.3-120.7			
ilver	36.6	0.99	mg/Kg wet	34.3		107	79.3-120.7			
hallium	118	5.0	mg/Kg wet	113		105	80.5-119.1			
anadium	70.4	2.0	mg/Kg wet	83.7		84.2	78.6-120.8			
CC D (P247120 DCD1)	228	2.0	mg/Kg wet	240 Prepared: 11/	/26/10 Amel-	95.1	80.3-119.4			
CS Dup (B247130-BSD1) ntimony	96.5	4.7	mg/Kg wet	147	20/17 Allaly	65.6	6.3-208	9.27	30	
rsenic	117	4.7	mg/Kg wet	143			82.4-116.8	9.50	30	L-07
arium	384	4.7	mg/Kg wet	415		92.5	81.7-118.5	8.86	20	20,
eryllium	167	0.47	mg/Kg wet	179		93.4	82.6-116.8	7.87	30	
admium	50.9	0.47	mg/Kg wet	56.2		90.5	82.2-117.5	9.98	20	
hromium	86.2	0.94	mg/Kg wet	101		85.4	82-118.2	9.41	30	
	106	1.4	mg/Kg wet	125		85.0	82.3-117.1	9.99	30	
ead	100	0.94	mg/Kg wet	108		92.5	82.6-117.4	10.5	30	
ead ickel	00.0			100		J 44.4	J2.0 117.7		20	
ickel	99.9			77 0		823	79 3-120 7	7 93	30	
ickel elenium	64.1	9.4	mg/Kg wet	77.9 34.3		82.3 96.8	79.3-120.7	7.93 9.81	30 30	
ickel elenium ^t ver	64.1 33.2	9.4 0.94	mg/Kg wet mg/Kg wet	34.3		96.8	79.3-120.7	9.81	30	
ickel slenium	64.1	9.4	mg/Kg wet			96.8 97.9				L-07

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B247130 - SW-846 3050B										
MRL Check (B247130-MRL1)				Prepared: 11	/26/19 Anal	yzed: 11/27/1	9			
Lead	0.471	0.50	mg/Kg wet	0.500		94.2	80-120			



Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

		Reporting	Spike	Source		%REC		RPD	
Analyte	Result	Limit Un	-	Result	%REC	Limits	RPD	Limit	Notes
Batch B246947 - % Solids									
Duplicate (B246947-DUP1)	Sou	rce: 19K1403-01	Prepared:	11/25/19 Anal	yzed: 11/26/1	9			
% Solids	59.0	%	Vt	66.3	3		11.6	20	
Duplicate (B246947-DUP2)	Sou	rce: 19K1403-02	Prepared:	11/25/19 Anal	yzed: 11/26/1	9			
% Solids	79.5	%	₩t	80.3	1		1.03	20	
Duplicate (B246947-DUP3)	Sou	rce: 19K1403-03	Prepared:	11/25/19 Anal	yzed: 11/26/1	9			
% Solids	53.9	%	Wt	55.9)		3.51	20	
Duplicate (B246947-DUP4)	Sou	rce: 19K1403-04	Prepared:	11/25/19 Anal	yzed: 11/26/1	.9			
% Solids	52.1	%	Vt	53.1			1.88	20	
Duplicate (B246947-DUP5)	Sou	rce: 19K1403-05	Prepared:	11/25/19 Anal	yzed: 11/26/1	9			
% Solids	44.7	%	Vt	45.7	7		2.12	20	
Duplicate (B246947-DUP6)	Sou	rce: 19K1403-06	Prepared:	11/25/19 Anal	yzed: 11/26/1	9			
% Solids	40.3	%	Vt	42.7	7		5.74	20	



FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.



CERTIFICATIONS

ertified Analyses included in this Report

Analyte	Certifications	
SW-846 6010D in Soil		
Antimony	CT,NH,NY,ME,VA,NC	
Arsenic	CT,NH,NY,ME, VA,NC	
Barium	CT,NH,NY,ME, VA,NC	
Beryllium	CT,NH,NY,ME,VA,NC	
Cadmium	CT,NH,NY,ME, VA,NC	
Chromium	CT,NH,NY,ME,VA,NC	
Lead	CT,NH,NY,AIHA,ME,VA,NC	
Nickel	CT,NH,NY,ME,VA,NC	
Selenium	CT,NH,NY,ME,VA,NC	
Silver	CT,NH,NY,ME,VA,NC	
Thallium	CT,NH,NY,ME,VA,NC	
Vanadium	CT,NH,NY,ME,VA,NC	
Zinc	CT,NH,NY,ME,VA,NC	
SW-846 7471B in Soil		
Mercury	CT,NH,NY,NC,ME,VA	
SW-846 8270D-E in Soil	Caperagan agentification fer	
Acenaphthene	CT,NY,NH,ME,NC,VA	
Acenaphthylene	CT,NY,NH,ME,NC,VA	
Acetophenone	NY,NH,ME,NC,VA	
Aniline	NY,NH,ME,NC,VA	
Anthracene	CT,NY,NH,ME,NC,VA	
Benzidine	CT,NY,NH,ME,NC,VA	
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA	
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA	
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA	
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA	
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA	
Benzoic Acid	NY,NH,ME,NC,VA	
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA	
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA	
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA	
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA	
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA	
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA	
Carbazole	NC	
4-Chloroaniline	CT,NY,NH,ME,NC,VA	
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA	
2-Chloronaphthalene	CT,NY,NH,NC,VA	
2-Chlorophenol	CT,NY,NH,ME,NC,VA	
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA	
Chrysene	CT,NY,NH,ME,NC,VA	
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA	
Dibenzofuran	CT,NY,NH,ME,NC,VA	
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA	
1,2-Dichlorobenzene	NY,NH,ME,NC,VA	
1,3-Dichlorobenzene	NY,NH,ME,NC,VA	



CERTIFICATIONS

ertified Analyses included in this Report

Analyte	Certifications	
SW-846 8270D-E in Soil		
1,4-Dichlorobenzene	NY,NH,ME,NC,VA	
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA	
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA	
Diethylphthalate	CT,NY,NH,ME,NC,VA	
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA	
Dimethylphthalate	CT,NY,NH,ME,NC,VA	
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA	
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA	
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA	
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA	
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA	
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA	
Fluoranthene	CT,NY,NH,ME,NC,VA	
Fluorene	NY,NH,ME,NC,VA	
Hexachlorobenzene	CT,NY,NH,ME,NC,VA	
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA	
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA	
Hexachloroethane	CT,NY,NH,ME,NC,VA	
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA	
Isophorone	CT;NY,NH,ME,NC,VA	
'-Methylnaphthalene	NC	
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA	
2-Methylphenol	CT,NY,NH,ME,NC,VA	
3/4-Methylphenol	CT,NY,NH,ME,NC,VA	
Naphthalene	CT,NY,NH,ME,NC,VA	
2-Nitroaniline	CT,NY,NH,ME,NC,VA	
3-Nitroaniline	CT,NY,NH,ME,NC,VA	
4-Nitroaniline	CT,NY,NH,ME,NC,VA	
Nitrobenzene	CT,NY,NH,ME,NC,VA	
2-Nitrophenol	CT,NY,NH,ME,NC,VA	
4-Nitrophenol	CT,NY,NH,ME,NC,VA	
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA	
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA	
Pentachloronitrobenzene	NY,NC	
Pentachlorophenol	CT,NY,NH,ME,NC,VA	
Phenanthrene	CT,NY,NH,ME,NC,VA	
Phenol	CT,NY,NH,ME,NC,VA	
Pyrene	CT,NY,NH,ME,NC,VA	
Pyridine	CT;NY;NH,ME,NC,VA	
1,2,4,5-Tetrachlorobenzene	NY,NC	
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA	
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA	
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA	
2-Fluorophenol	NC	
-846 8270D-E in Water		
Acenaphthene	CT,NY,NC,ME,NH,VA	



CERTIFICATIONS

ertified Analyses included in this Report

Analyte	Certifications
W-846 8270D-E in Water	
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT;NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
-Chloroaniline	CT,NY,NC,ME,NH,VA
-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
-Chloronaphthalene	CT,NY,NC,ME,NH,VA
-Chlorophenol	CT,NY,NC,ME,NH,VA
-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Pimethylphthalate	CT,NY,NC,ME,NH,VA
,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
ri-n-octylphthalate	CT,NY,NC,ME,NH,VA
,2-Diphenylhydrazine/Azobenzene	NY,NC
luoranthene	CT,NY,NC,ME,NH,VA
luorenc	NY,NC,ME,NH,VA
Iexachlorobenzene	CT,NY,NC,ME,NH,VA
Iexachlorobutadiene	CT,NY,NC,ME,NH,VA
lexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Iexachloroethane	CT,NY,NC,ME,NH,VA



CERTIFICATIONS

rtified Analyses included in this Report

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Analyte	Certifications
SW-846 8270D-E in Water	
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenoi	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
yridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

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CKINOS

Doc # 381 Rev 2_06262019

39 Spruce Street

CHAIN OF CUSTODY RECORD

Phone: 413-525-2332

http://www.contestlabs.com

Glassware in freezer? Y / N Prepackaged Cooler? Y / N missing samples from prepacked *Contest is not responsible for Chain of Custody is a legal document that must be complete and accurate and is used to determine wha analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Glassware in the fridge? Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Fest values your partnership on each project and will try to assist with missing information, but will not I S = Sulfuric Acid

B = Sodium Bisulfate

X = Sodium Hydroxide ' Matrix Codes: GW = Ground Water WW = Waste Water Total Number Of: Preservation Codes DW = Drinking Water Preservation Code Courter Use Only SL = Sludge SOL = Solid O = Other (please O - Other (please define) Non Soxhlet PCB ONLY coolers - Methanol Soxhlet N = Nitric Actd Page / of / BACTERIA, PLASTIC ENCORE GLASS VIALS Thiosulfate possible sample concentration within the Conc H · High; M · Medium; L · Low; C · Clean; U · Please use the following codes to indicate Hallkey-Sea Silly Skills bill some sall has Chromatogram AIHA-LAP, LLC Code column above: ANALYSIS REQUESTED held accountable. Dens MCP Certification Form Required MA MCP Required RCP Certification Form Required CT RCP Required MA State DW Required WRTA DW STULZW 41 X East Longmeadow, MA 01028 ENCORE BACTERIA Field Filtered To be a surprise Field Filtered Lab to Filter Lab to Filter ASUNDQUIST @ COM CONSULTANTS, COM MOBRIEN & COW CONSULTANTS, LON PLASTIC School BOTH MBTA GLASS VIALS 0 0 0 0 Conc Code ř Municipality Brownfield Due Date: 10-Day 3-Day 4-Day 21 J COMPJGRUB CLP Like Data Pkg Required Comp PFAS 10-Day (std) 本のいま Government 0930 0000 Email To: 000 11.24.9 68.30 1030 **Date/Time** 1200 1200 1300 1000 1000 Federal ormat: Other: -Day -Day Client Comments: Project Entity Beginning Date/Time 19.19 MIKE OBRIEN N 44 Email: info@contestlabs.com DRIVE WATICK MA COW CONSUCTANTS UMASS WALTHAM BEAVER ST WALTHAM Clent Sample ID / Description 61-22-11 Fax: 413-525-6405 Jate/Time: Date/Time: Date/Time: Date/Time: Sampled By: ALAN SUNDQUIST 118-10 ALAN SUNDQUIST H8-14 HB-6 H8-1 48-5 11-8H 118-7 48-8 HB-205 Con-test 830.10 Con-Test Quote Name/Number: H Can Relinquished by: (signature) linquished by: (signature) 9 O ගු O り eceived by: (signature) Received by: (signature) Con-Test Work Order# Project Location: Project Manager: Invoice Recipient: Praject Number: Address:

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples



1					Doc# 27	7 Rev 5 20	17	
Login Samp	le Receipt Checklist	- (Rejection	- Criteria List	ing - Us	ing Acceptan	ce Policy)	Iny False	
	Statement will be bro	-	ttention of t	he Clie	nt - State True	e or False		
Client (D	W Consultant	27			•			
Received B		SA	Date	11	22	Time	1600	
How were the sar	mples In Cooler	T	No Cooler		On Ice	T	No Ice	
received?	Direct from Sam	nolina	_		Ambient		Melted Ice	
		By Gun #	5		Actual Tem	0-21	_ Wiched lee	***************************************
Were samples was Temperature? 2		By Blank #						-
•	ody Seal Intact?	- by blank #		a Samo	Actual Tem les Tampered	-	NIN	-
	Relinquished?		•		Agree With Sa		NA_	•
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re there Rushes			•		as notified?			•
re there Short Ho	olds?	E	Who was notified?					
s there enough Ve	olume?	T	•					•
s there Headspac	e where applicable?	A+A		MS/MSD	1? F			
Proper Media/Con	tainers Used?	-FSA-		s splittin	g samples req	uired?	F	
Vere trip blanks re	eceived?	丰		On COC	5 E			•
o all samples hav	ve the proper pH?		Acid _	IVA		Base	_NA	
lala d	e Condinate	1 1			#			#
Inp-	1 Liter Amb.		1 Liter F	lastic		16 o	z Amb.	1(1)
ICL-	500 mL Amb.	(500 mL l	Plastic		8oz Ar	nb/Clear	
leoh-	250 mL Amb.		250 mL l			4oz Ar	nb/Clear	
isulfate-	Flashpoint		Col./Ba				nb/Clear	
[- -	Other Glass		Other P				core	
hiosulfate-	SOC Kit	-	Plastic		-	Frozen:		
ulfuric-	Perchlorate		Ziplo	CK				
			Unused M	edia				
leib II	Centralingia	# 1			#			
	Liter Amb.	<u> </u>	1 Liter P				z Amb.	
CL-	500 mL Amb.	 	500 mL F		_		nb/Clear	
eoh-	250 mL Amb.		250 mL F				nb/Clear	
isulfate- I-	Col./Bacteria	 	Flashp		-		nb/Clear	
niosulfate-	Other Plastic SOC Kit		Other G				core	
	Perchlorate		Plastic Ziplo			Frozen:		
ulfuric-	Percolorate							

4			